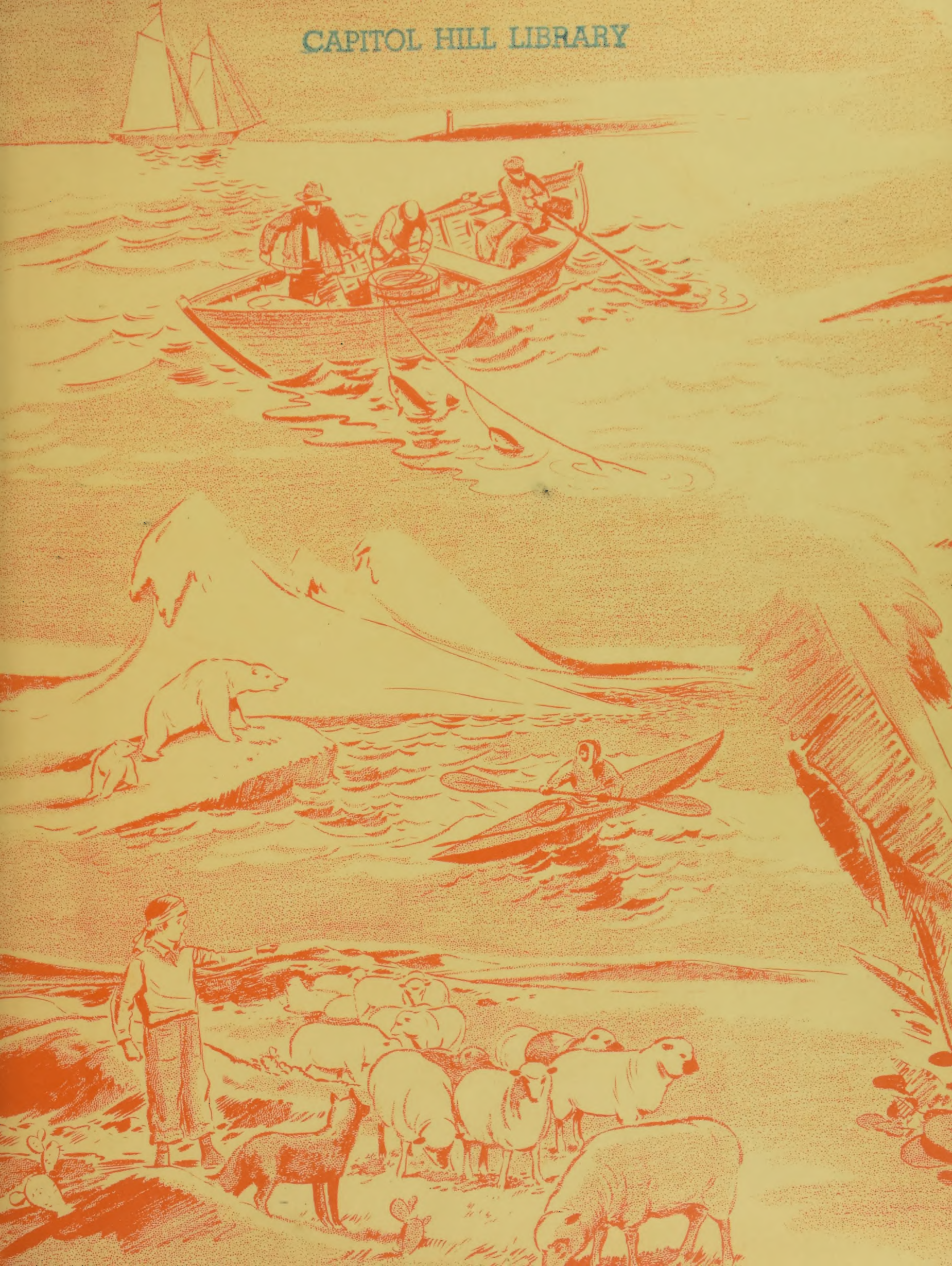


FRIENDS NEAR *and* FAR

MEYER • SORENSON • M^CINTIRE







FRIENDS
NEAR AND FAR

FRIENDS NEAR AND FAR



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UNIFIED SOCIAL STUDIES

FOLLETT PUBLISHING COMPANY
Chicago

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Seventh Printing

PRINTED IN U.S.A.

Foreword

FRIENDS NEAR AND FAR presents vivid pictures of life in six carefully selected regions of the Western Hemisphere. The first of these regions lies at the equator. Each succeeding unit deals with regions that are farther and farther from the equator. Adaptations to environments that vary in latitude, altitude, climate, and physical features are clearly shown.

Each unit consists of a well-written story, with a plot centering around a particular family and their friends and neighbors. This not only makes the material more interesting but also more concrete, and thus easier for children to visualize. Each story covers a full year, including activities of all seasons.

The content of FRIENDS NEAR AND FAR is drawn from many fields. While the emphasis is given to geography, the study of this subject has been greatly enriched by integration with material from the fields of history, anthropology, music and art.

It is made clear that people in different localities live differently, not because they are queer, but because certain modes of life thrive best under certain conditions, or because these people have been isolated from other parts of the world.

The contributions of each region to the knowledge, culture, and material prosperity of peoples in other parts of the world are shown. The early inhabitants of each region, the changes that have taken place since the early days, and improvements in ways of living and working receive their proper attention.

The visual aids were planned and selected for their teaching values. The pictures supplement

as well as illustrate the text. The drawings, maps, and diagrams give certain specific information or furnish opportunities for developing certain desirable skills.

Each unit ends with a study of comparable regions in other parts of the world. These regions are clearly indicated on maps, and sufficient information is given to enable pupils to recognize the differences as well as the similarities of these various regions.

An introductory unit contains an abundance of readiness materials. Pictures and brief discussions of the food, shelter, clothing, occupations, and transportation in each region give a brief overview of the book. They furnish information, arouse interest, and stimulate questions which are answered in the materials that follow.

A simple introduction to maps is included in this preliminary unit. Map concepts are carefully presented, and exercises that require the use of very simple map skills are provided. Opportunities for applying these skills are given from time to time, and new skills are introduced gradually throughout the book.

The pictures, diagrams, and maps throughout the text also furnish excellent readiness materials. New ideas may be developed and new words may be added to the children's speaking vocabularies before they are encountered in print.

Concepts are carefully developed throughout the text. Difficult or new terms are also pronounced and defined in the Glossary on pages 243-249. There are many exercises that require or encourage the use of the Glossary.

The use of the Index is called for in a number of activities. Systematic reference to the Glossary and the Index should develop skill in the use of both of these important parts of the book.

The exercises that follow the various sections of the units may be used as class, small group, or as individual activities. They may also suggest other activities which will prove valuable to teachers and pupils. Many of the activities included are suitable for use with other sections also,

but were not repeated because of limited space.

A selected bibliography at the end of each unit lists storybooks and textbooks related to the unit which may be read by the children. Most of the books listed are about equal in difficulty to FRIENDS NEAR AND FAR. If books are much easier or more difficult, that fact is indicated in the annotation. Class discussion of these books will supplement the text.

THE AUTHORS.

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To the Pupil

This book was written for you. We hope you will like it. We not only want you to enjoy it, but we also want you to find it helpful. From it you should learn much about the ways in which people live in other parts of the world. Many of them do not live as we do. They live in the ways that are best for them in the places in which they live.

We have made a special effort to get pictures that you will enjoy. They will tell you some things about places and people that cannot easily be told in words. Perhaps you will enjoy studying the pictures even more than reading the text.

We think you will also like the maps in your book. They will tell you many things about the lands in which other people live. You will learn to read stories from maps as well as from pictures.

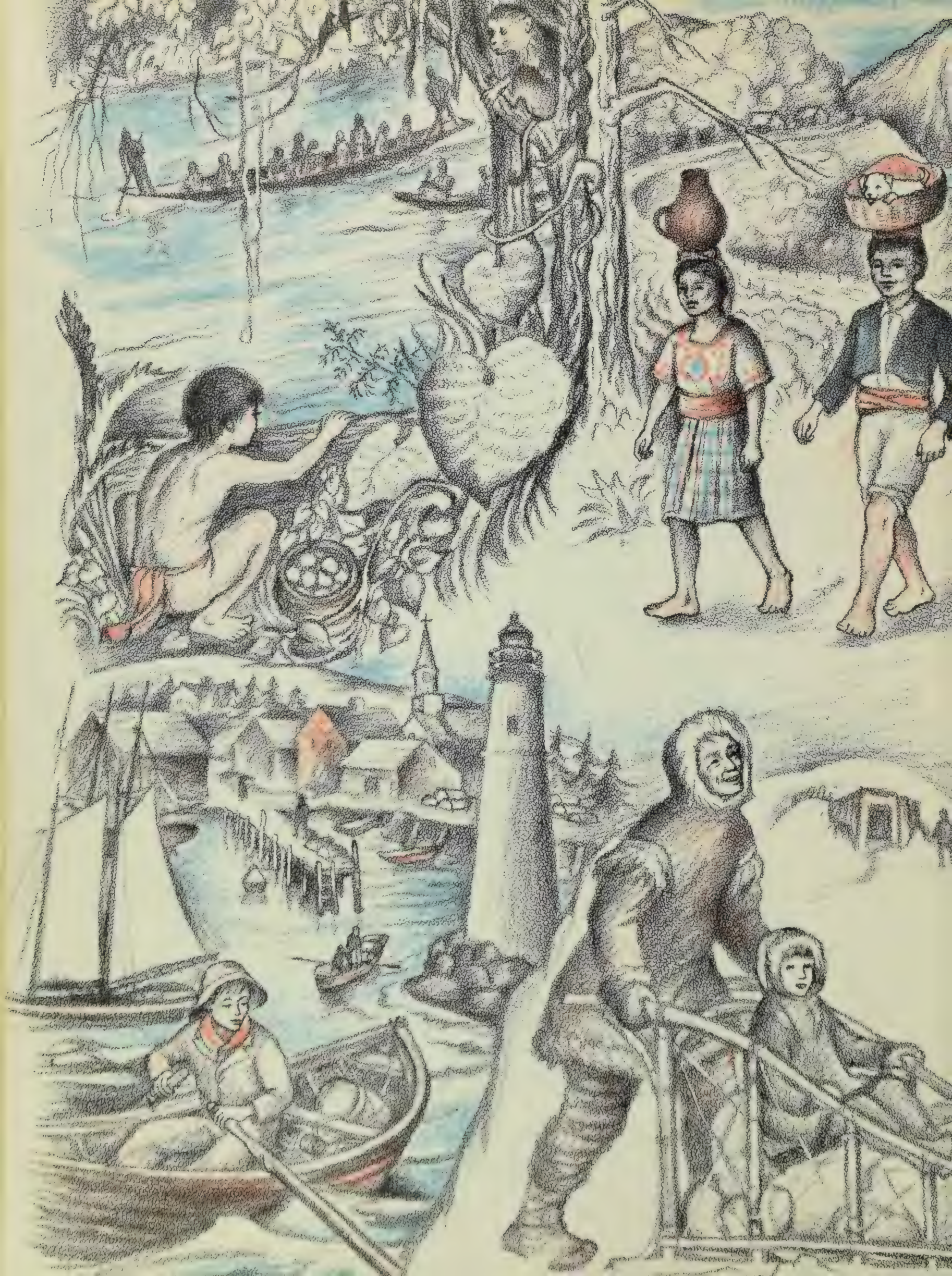
When you have read a story in this book, you may want to read more about the same people or lands. To help you do this, we have given you a list of books at the end of each unit. We think you will find it useful.

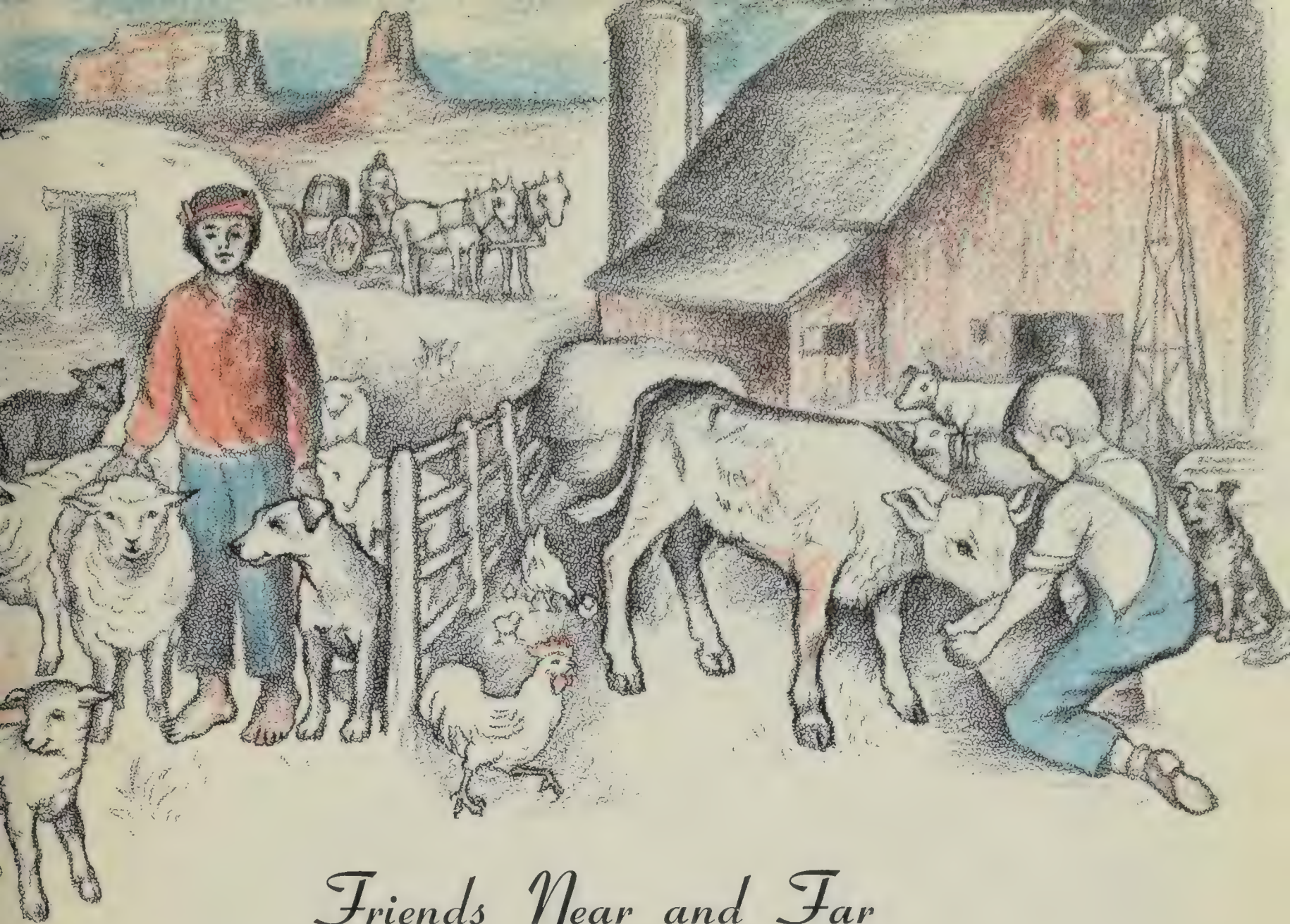
To help you with the new words, there is a glossary, or little dictionary, at the back of the book. Also, there is an index to help you find any story or map or picture which you may want to see. We hope you will use the glossary and index often.

Most of all, we think you will like the interesting exercises which are provided for you throughout the book. There are so many different kinds of exercises here that some of you will like one kind and some another kind. Thus something interesting should be found for everyone.

When you have finished reading the book and doing the exercises, you will be proud to find how much you know about the ways people live in different kinds of places. You will want to go on and learn more and more about this interesting world and the people that live in it.

THE AUTHORS





Friends Near and Far

Do some of these boys and girls seem strange to you? If so, that is because you do not know them. You will soon begin to think of them as your friends, for they are the boys and girls you are now going to read about.

First comes Pimwe, who must be ever on guard against dangerous enemies of the forest. His home is in a hot, wet jungle far, far away.

Next come two children from a land of high mountains. They are José and Ria. José wishes he had a puppy like the one in the basket.

The boy with the sheep is Joe Manygoats, and he lives in a land so dry that drinking water has to be hauled in barrels from distant springs.

Tommy Simpson is a 4-H Club farm boy. When his calf grows larger, he hopes it will win a blue ribbon at the State Fair.

The New England fisherboy is Chris Pruitt. Chris has always lived within sight and smell of the sea.

Nancy Monroe is spending an exciting year among the Eskimos of the frozen north. She finds dog sledding a thrilling adventure.

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This jungle home provides shelter from the hot sun and the heavy rains.

Our Friends Live in Different Kinds of Houses

Page 2

Houses are built of many kinds of materials and in many different ways. People who live in hot, wet lands usually build houses of the trunks and leaves of trees. The roofs of such houses have to

be made very steep to shed the heavy rains that fall nearly every day.

In some warm parts of the world, people use bricks of sun-baked clay for the walls of their houses. Steep roofs of



The walls of this house are made of sun-dried clay bricks. The roof is being made of thick layers of grass, carefully tied in place to keep it from blowing away.

Mrs. Branson De Cou—Sawders



Frances Cooke Macgregor

This earth-covered log house makes a comfortable winter home for some desert family.



A. C. Shelton

This fisherman's house is sided with wood boards, and roofed with wood shingles.

grass extend out beyond the walls to protect them from the rains.

Other parts of the world are so dry that the houses can be built of logs and earth. It never rains hard enough there to wash the earth off the round roofs.

Houses near the sea are often built of wood and show the marks of the storms they have stood through. Stone and

bricks are also used along many seacoasts.

In the treeless country of the far North, houses are built of earth and scraps of wood that have been washed up on the shore by waves of the sea.

Everywhere people build their houses of the materials they find near them. And they build them in the way that best suits their kind of weather.

Page 3

Old scraps of wood and squares of grass-covered earth were used to build this house.

Courtesy U. S. Indian Service





This boy does not need much clothing for he lives in a hot, wet forest. No matter what time of the year it is, his part of the world is always warm and moist.

LaVarre—Gendreau

Page 4

Our Friends Wear Different Kinds of Clothes

Many kinds of clothes are worn throughout the world. In some countries people still dress the way the people in those countries dressed many years ago.

In other countries styles in dress change from year to year.

People who live in the hot, wet parts of the world need very little clothing.

These highland women wear gaily colored blouses and skirts all through the year.

Ralph Hancock





Courtesy U.S. Indian Service

The Indian boy and girl in this picture are dressed in their very best clothes.



Roy Pinney—F.P.G.

This farm boy of central United States wears comfortable overalls in the summer.

They make their clothes from bark, leaves, grass, or other forest products.

In the highlands, people wear more and warmer clothing. Many of the women make the cloth for their own clothes. Cotton and wool are the materials most often worn.

On the farms of the United States, overalls are worn by men and boys for work and play. On Sundays and holidays they wear their good clothes. Most farm people buy their clothes ready-made.

In the cold North, people make clothes from the fur of animals. They also wear warm boots, hoods, caps, and mittens.

People's clothes are not the same in different parts of the world because the weather is not the same and they have different materials of which to make them.

The Eskimos of the cold North need the warmest kind of fur clothing.

Ewing Galloway





Uncooked food spoils quickly in the hot, wet parts of the world. So everything, from frogs to sweet potatoes, is put into the cook pot soon after it has been gathered.

Page 6

Our Friends Eat Different Kinds of Foods

People usually obtain their foods from plants and animals growing about them. In a few parts of the world, food is so plentiful that people can get all they

need by hunting and fishing and by gathering plants, nuts, and fruits. But in most places people have to raise the plants and animals they use for food.

The common food in some parts of the world is corncakes.

Ralph Hancock



In regions where not enough food can be raised, people bring food in from regions that raise more than is needed.

Different people prepare their meals in different ways. Some eat a great deal of their food raw. Others cook most of it. Baking, boiling, roasting, frying, and broiling are some of the ways of cooking that are used throughout the world.

The kind of region people live in has much to do with the kind of food they eat and the way they prepare it. Some plants and animals can be found or grown in one kind of region but not in another. People eat many different kinds of food because different regions produce different plants and animals.

Here's a meal of roast beef and other good things that any child in our country could enjoy.

Courtesy National Livestock and Meat Board



Josef Muench—F.P.G.

These Indian women have mixed their dough and are about to bake their cornbread.

Page 7

Lobster is one of the most popular sea foods in some parts of our country.

Arthur Griffin—F.P.G.





LaVarre—Sawders

Hunting and fishing are the chief kinds of work in many parts of the world.

Our Friends Do Different Kinds of Work

Page 8

People work so that they may have the things they need for the enjoyment of life. Food, clothes, houses, furniture, dishes, medicine, books, machinery, auto-

mobiles—these are some of the things people work to produce.

Some people need more than others. If they happen to live in a land that is

Raising sheep is one way to make a living.

Courtesy U.S. Indian Service





Courtesy J. I. Case Company

Farming occupies more people in the world than any other kind of work.



Courtesy Massachusetts Fisheries Assn.

Catching fish and shipping them to distant markets keep many people busy.

always warm, they have no need for stoves or overcoats to keep them warm. In most regions of little rainfall, the people have no use for boats.

The people of some regions have to work harder than those of other regions to get the things they need. Where food and other things are plentiful, not much

work is needed. But where they are scarce or hard to get, people may have to work long hours to provide them.

The kinds of work people do depend upon what they need and what they have to work with. The people of different lands need different things and work with many different materials.

Page 9

Spearing seals for their meat and fur is important work for people in the cold North.

Lomen Bros.





Severin—Black Star

Next to walking, the oldest way of traveling is by boat.

Our Friends Travel in Different Ways

People in different parts of the world use many different ways of traveling about and of carrying things from place to place. Of course, the way that is most common throughout the world is walk-

ing. There are still many regions where more people travel on foot than any other way.

Boats provide another very common way of traveling and of carrying things.

Page 10

In some parts of the world people carry heavy loads upon their backs.

Ralph Hancock





Courtesy U.S. Indian Service

Wagons drawn by teams of horses are used where swifter ways of travel are lacking.

Page 11

People can sometimes travel by boat in places where they can travel in no other way. Rivers and oceans are highways joining even the most distant parts of the world.

Horses and wagons, automobiles, motor trucks, railway trains, and airplanes

are used almost everywhere in our own country. What other ways of traveling can you mention?

Everywhere men travel about and carry things from place to place in ways that are well suited to the kind of regions in which they live.

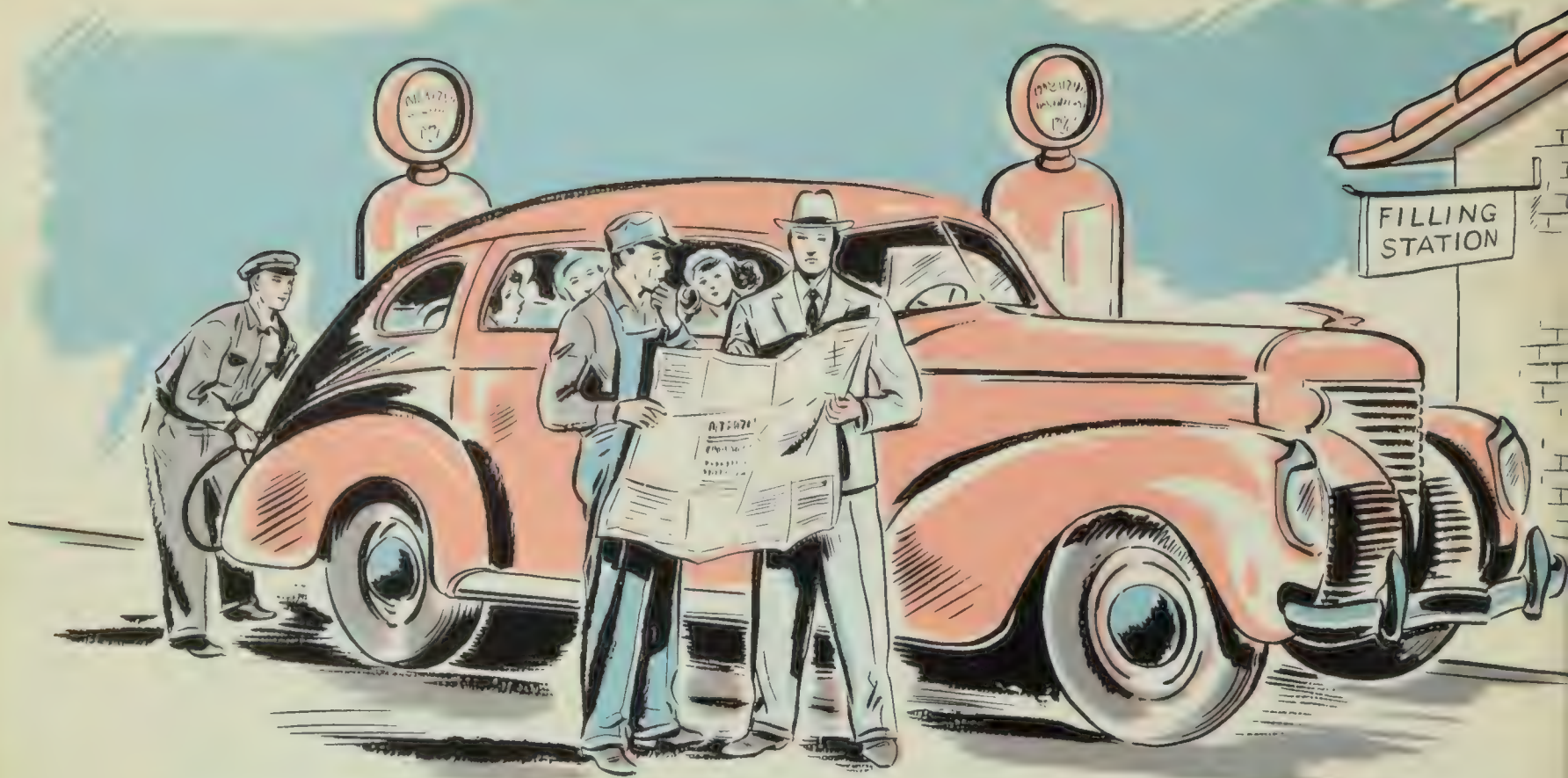
Motor trucks move swiftly along the smooth highways from farm to city.

J. C. Allen & Son

From the warm South to the frozen North, boats are a common means of travel.

W. L. Highton





When we travel by automobile, we use road maps to find the roads that will take us where we want to go.

We Learn from Maps Where Our Friends Live

You have seen pictures of the children you are going to read about in this book. You have learned something about their homes, the kinds of clothes they wear, what they eat, and some of the things they do at work and play. There are many other interesting things to learn about them.

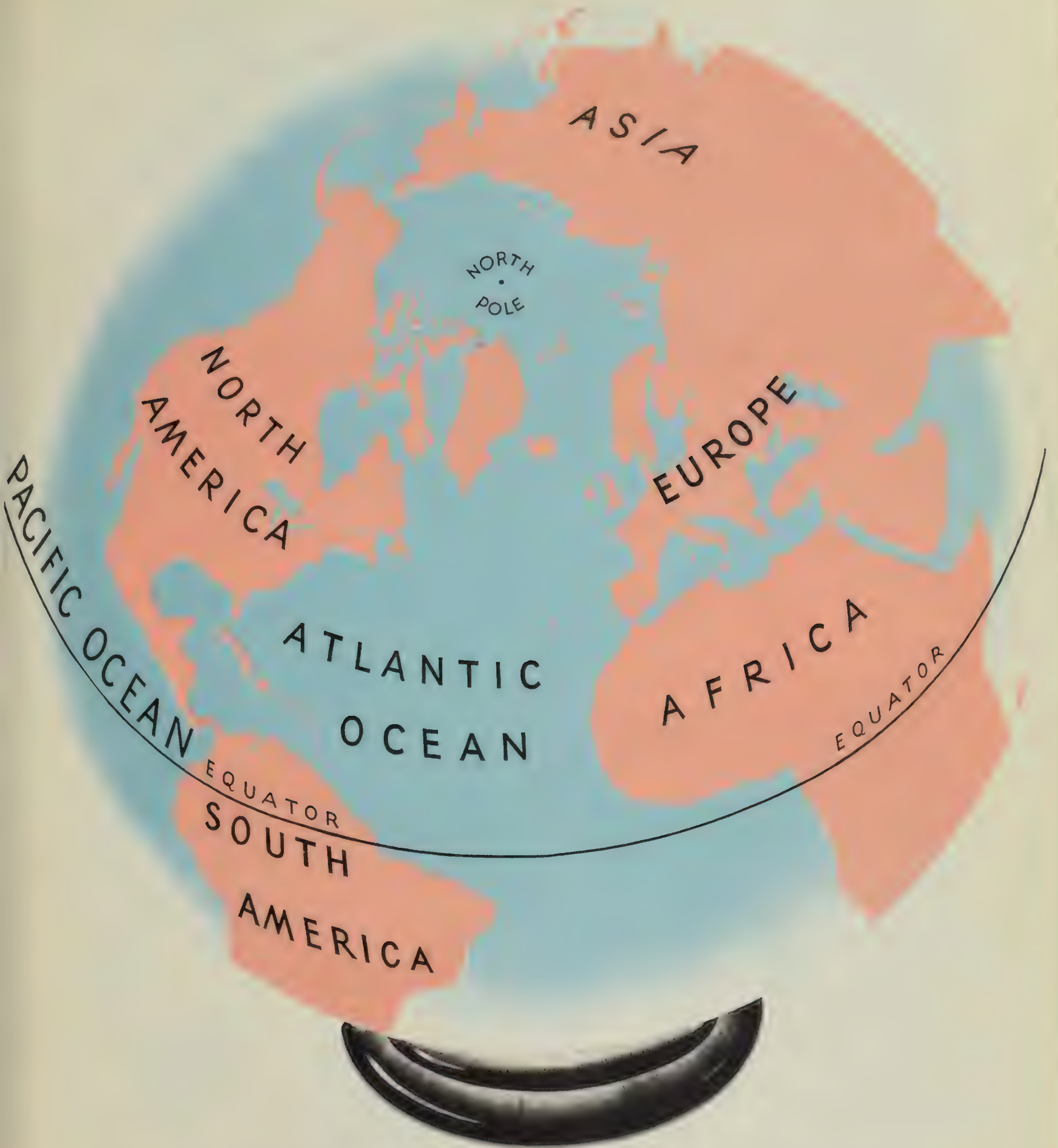
First you will like to know where they live. The homes of three of them are in the United States. One of them is a boy who lives on a farm in the central part of the United States. Another is a fisher-boy who lives on the eastern seacoast. The third boy is an Indian boy who tends his family's sheep in the dry southwestern region of the United States. You could learn from a road map how to visit the parts of the country where they live, and you could go there by automobile.

But the other children you will read about in this book live in places where

automobiles cannot go. You would need more than a road map to find the way to their homes. If you were planning to go there by air, you would need maps showing the routes airplanes follow. If you were going by water, you could find maps that show the routes taken by ships.

There are maps for every purpose. You will find a number of maps in this book, and each one will tell you something different. Most of them show only parts of the world, but a few are maps of the whole world. Have you ever learned to find places on a map of the world?

The best kind of world map is a *globe*. It is best because it has the same shape as the world itself—round. Everything on a globe can have the same shape as the thing it represents on the earth. Of course it has to be very much smaller. Many things that appear on the face of the earth are too small to show on globes



The best kind of world map is the globe. On this globe, the part that is water is colored blue. All the rest is land. The large bodies of land are continents. The large bodies of water are oceans.



H. Armstrong Roberts

It is fun to find different places on a globe. Can you tell which continent this boy is looking at? What other continent can you see on the globe?

at all. But the things that do show can be shown exactly as they should be.

Do you have a globe in your school? If so, look at it now and see how much you already know about the world. Can you tell which parts are covered by water? Which parts are land?

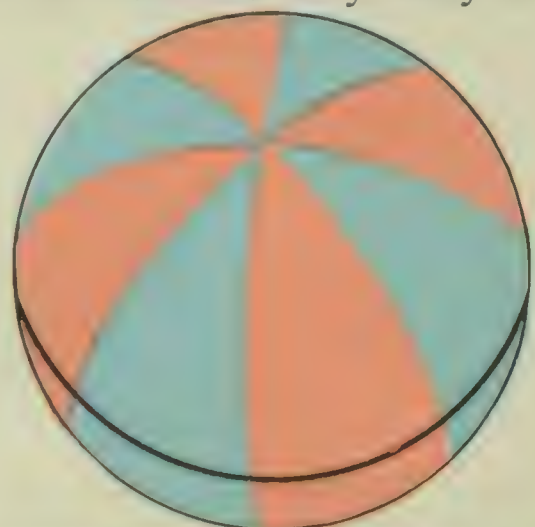
The large bodies of land are called *continents*. How many continents can you find? What are their names?

The many smaller bodies of land are *islands*. There are thousands and thousands of islands on the earth. Most of them are too small to show on any globe. Islands are smaller than continents, and are surrounded on all sides by water. Find some of the larger islands on your globe. What are their names?

The largest bodies of water are the *oceans*. You will find their names on the

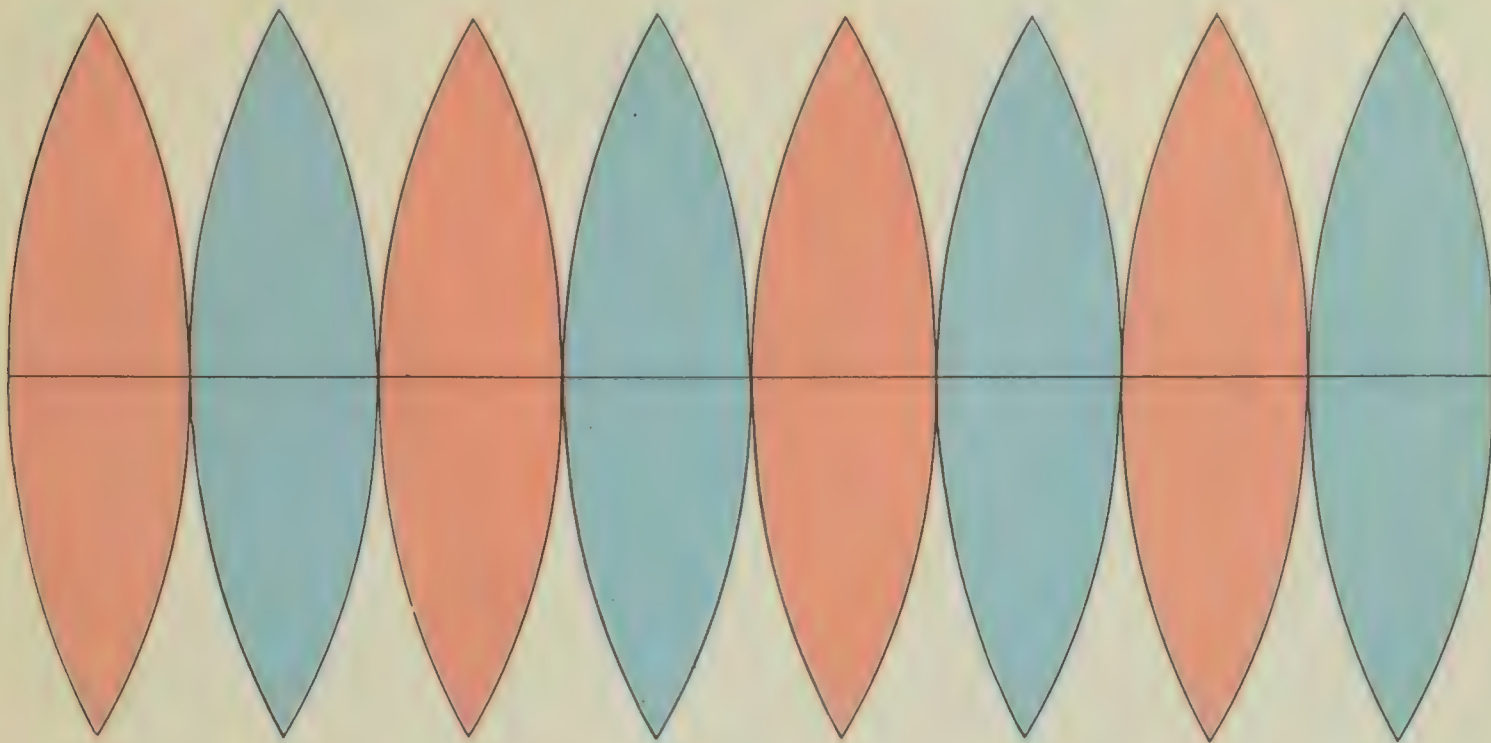
globe. See if you can name all of them.

We cannot carry globes with us wherever we go, so we have found ways of making maps on flat pieces of paper. Such maps are easier to carry and to use, but they are not so correct as globes. They cannot show the shapes of continents and oceans as they really are.

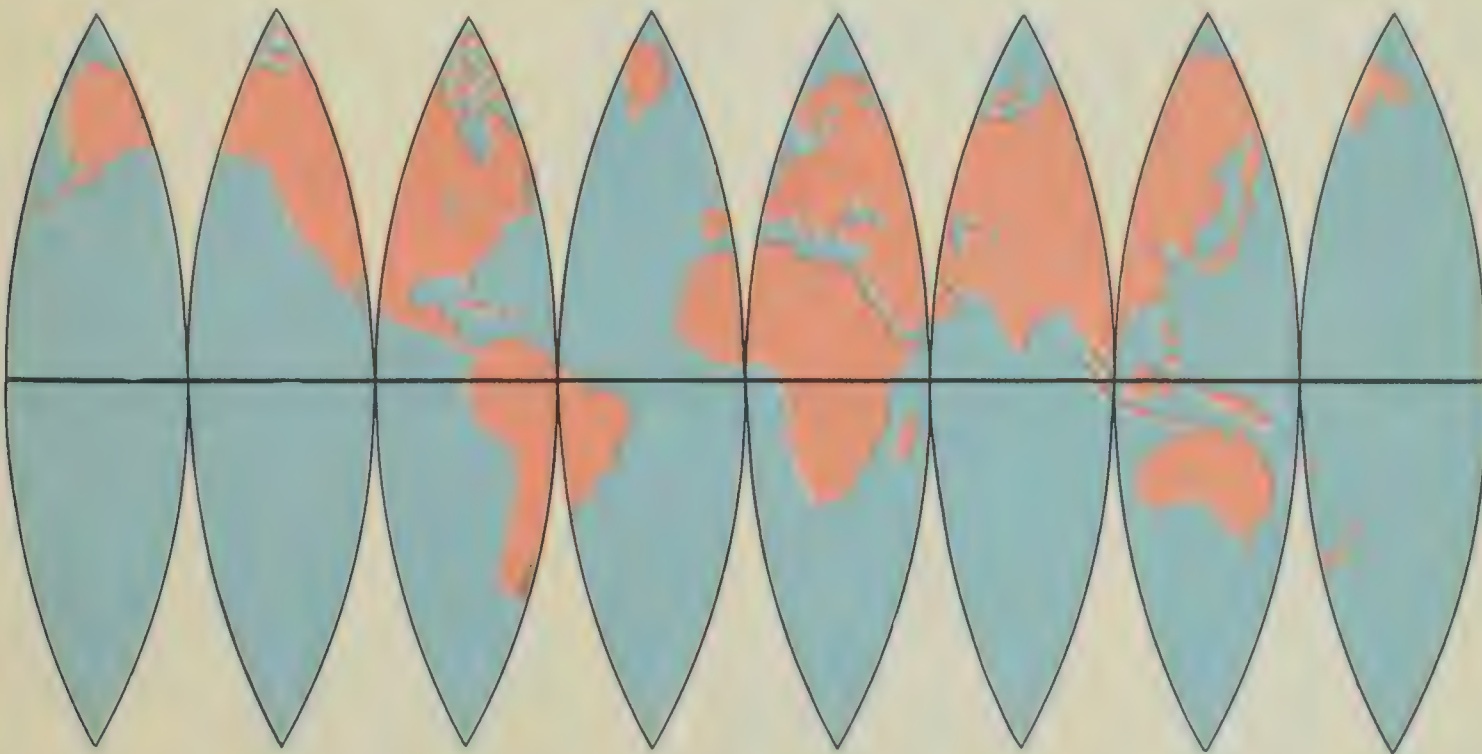


A playground ball has nearly the same shape as a globe of the world.

If you took the cover off a playground ball and tried to lay it out flat, you would first have to open the seams. It would then look like this.



If you could take the map off a globe and open it up in the same way, you would have something that looks like this. Do you think such a map would



be easy to use? Why, or why not?

You can see what would happen if you tried to complete this map by filling in the blank spaces. The parts of the world shown at the top and bottom of the map would become much larger than

they are on the globe. That is, flat maps cannot show the shapes of continents and oceans as they really are. So whenever you look at a flat map of the world, remember that it is never so correct as a globe map.



These round maps represent the two halves of a globe. Put the two halves together and you will get a world map much like the one at the bottom of the page. The map below is easy to use, but it is not nearly so correct as a globe.



This map of North America shows the continent divided into parts called countries. One of these countries is the United States. What are the names of some other countries? The region near the bottom of the map called Central America is not a country. It is really a group of seven small countries at the southern end of the continent.



Maps can be made of any part of the world—even the smallest island. Much more can be shown on a map of a smaller region than on a map of a larger region.

The continent of North America is very large. A map of North America can show only a few of the most important things about it, such as countries, mountains, larger lakes, and rivers.

In using a map one has to be able to find directions on it. Usually the top stands for north, the bottom for south, the right side for east, and the left side for west. Most maps in this book are

made that way. They are easy to use.

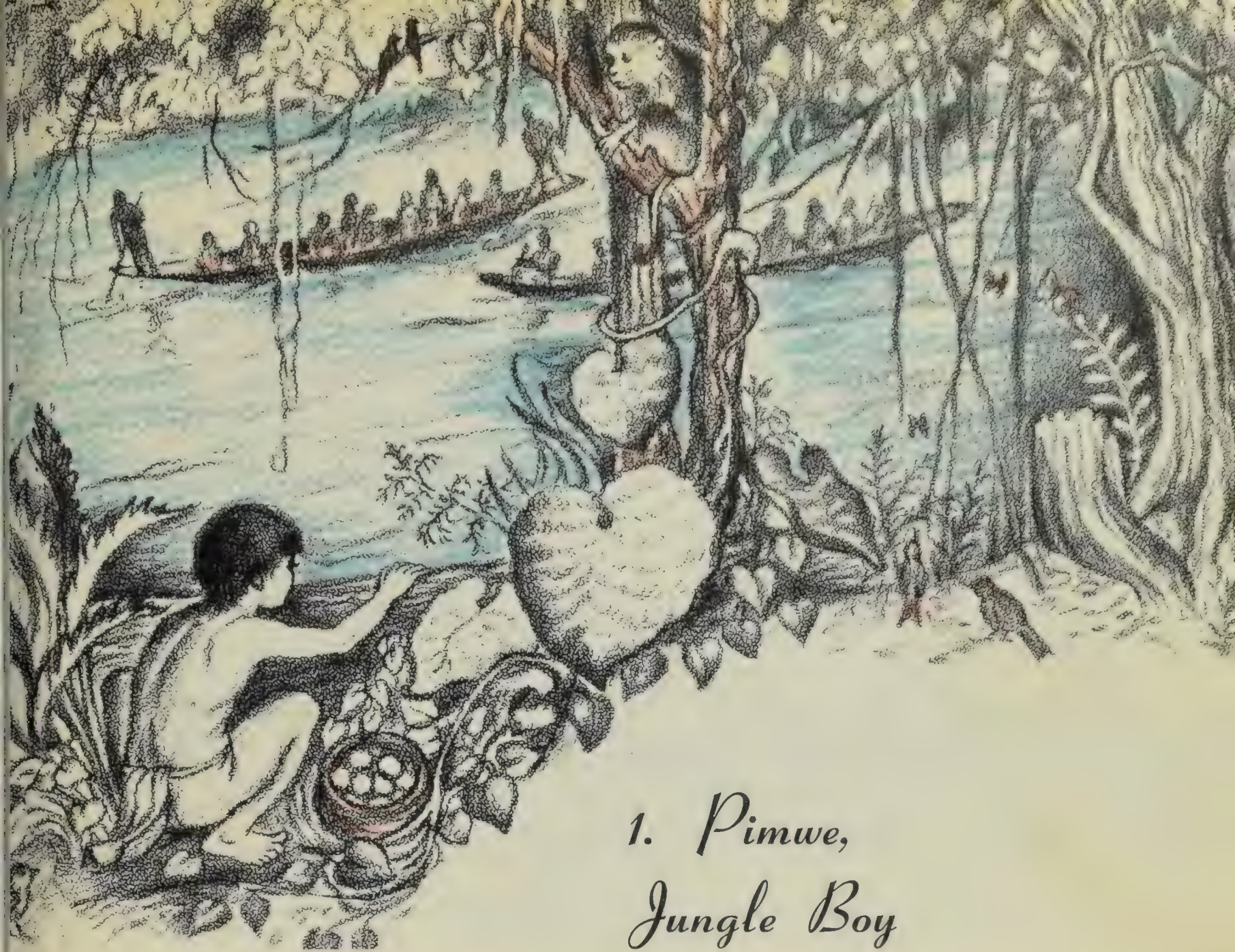
Using the map of North America on this page, see if you can find the answer to these questions: In which direction from the United States are Canada, Mexico, Central America, the Atlantic Ocean, the Pacific Ocean? What ocean is north of North America? What is the name of the large island that you see to the north of Canada?

There are lines on the map to represent mountains. Which side of the continent of North America has more mountains, the east side or the west side?



The first of the friends we are going to visit lives in South America. All the others live in North America. We shall begin with the story of Pimwe, who lives farthest south, and end with the story of Nancy Monroe's visit among the Eskimos of the far North. On this small map all our friends seem to be close together.

But their homes are really hundreds of miles apart.



1. *Pimwe,* *Jungle Boy*

A SMALL Indian boy was searching for turtle eggs along the banks of a river in the middle of a great forest. He had been swimming in the river and was now gathering eggs for supper before starting home. As he searched, he listened to the screeching of parrots and the chattering of monkeys in the branches of the trees over his head.

Suddenly, a new sound struck his ears. Quick as a flash he threw himself behind a fallen log. He knew the sound. It was the steady dip of paddles in the stream. *Pimwe* was only nine years old, but already he recognized the dangers of the forest. His heart beat rapidly with excitement and fear.

Peeking over the edge of the log, he saw two dugout canoes coming round a bend in the river. They were filled with warriors. As the canoes drew near *Pimwe's* hiding place, he could tell that the warriors were *Andoke* Indians. They were bitter enemies of the *Boro* tribe to which he belonged.

Pimwe feared the warriors would see him behind his log and carry him off as a captive to their village. One of his cousins had been captured by *Andoke* warriors two years before and had never been seen again. But the men did not notice *Pimwe*, and they did not see the carefully hidden trail which led from the river to *Pimwe's* village.



Pimwe forgot all about the turtle eggs he had gathered, and ran through the tangled forest as fast as he could. He must hurry home and warn his people about the Andoke warriors.

As soon as the canoes had passed out of sight, Pimwe scrambled up the bank as fast as his legs could carry him. He must run quickly and warn his people. Other enemies might come and discover the hidden path which led to the village.

The Great Forest

The ground over which Pimwe ran was covered with tall trees, tangled vines, and thick bushes. The trees came right down to the edge of the river. Beneath them were many bushes and small plants. This *undergrowth* was so thick that Pimwe could see only a few feet ahead of him as he ran.

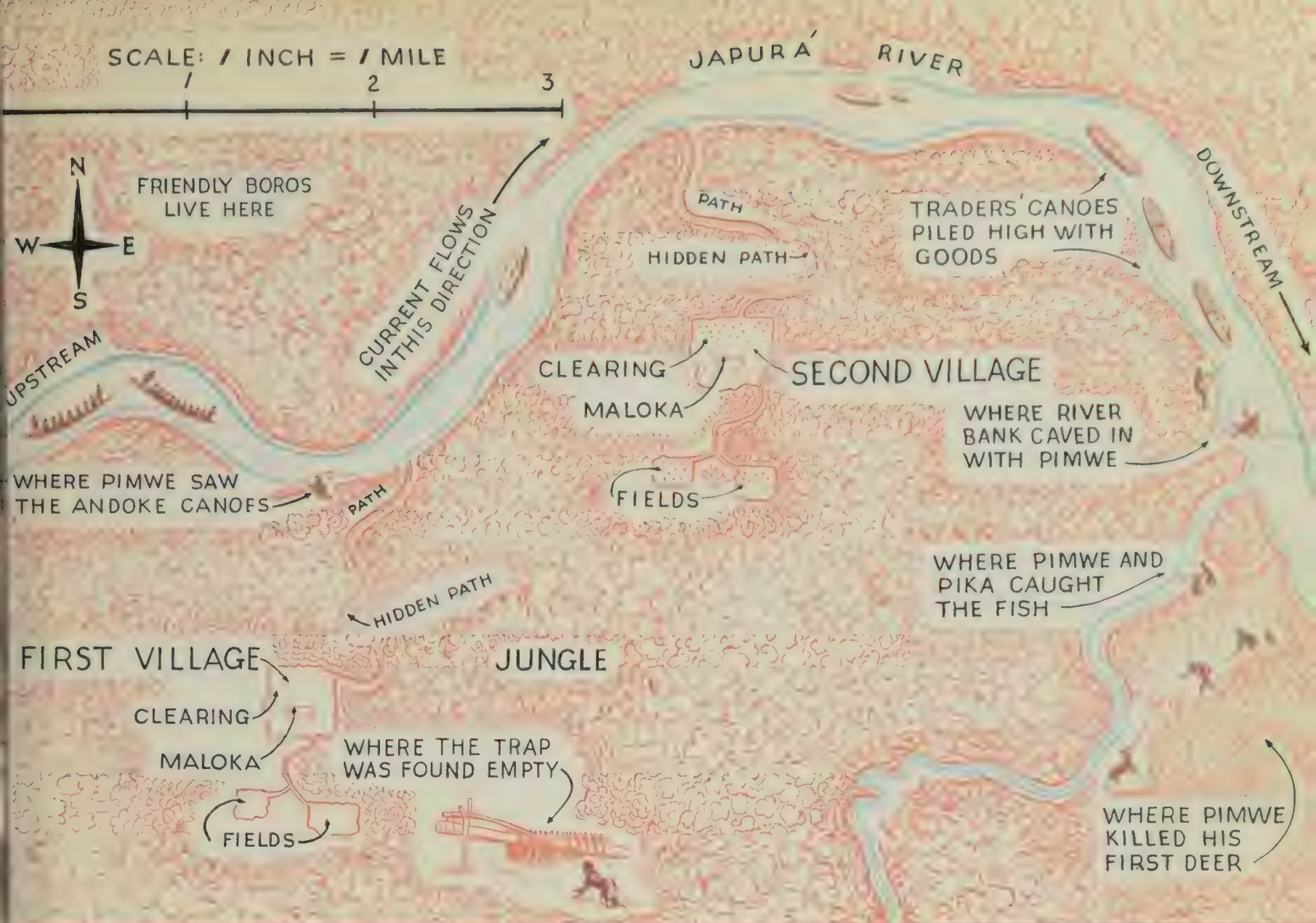
Once Pimwe and his brother had climbed to the top of a tree near the

river. They wanted to see what the rest of the world was like. They thought that if they climbed high enough they could see beyond the forest. Up and up they went. But the higher they climbed, the more they saw of forest.

"It is no use," Pimwe finally called to his brother below him. "There is nothing in the world but forest and the river."

The River

The river near which Pimwe lived was the *Japurá*. This is one of the rivers which flows through the great forests of South America. The land around Pimwe's home was mostly level, and the river flowed in a slow, gentle *current* between its low banks.



This is a map of Pimwe's forest. See how many interesting things you can find on it. The scale of miles in the northwest corner of the map will help you measure distances. One inch on the map stands for one mile on the ground. Can you tell how wide Pimwe's forest is?

Pimwe often wondered what the world was like beyond the bend in the stream. He would like to follow the Japurá down to the place where it joined the great river called the *Amazon*. Pimwe had heard that the Amazon River flowed away to the east so far that the fastest canoe would have to travel day and night for a whole month to reach its mouth. He had also learned that the Amazon was very wide throughout most of its length.

So many strange things had he heard about this mighty river, that he could scarcely believe all of them were true. Some day he would go and find out.

Pimwe and the other Boro people did

not find it hard to understand where the water came from to fill the mighty river. The great forest in which they lived is one of the wettest *regions* of the world. Hardly a day passes without a heavy shower. For months at a time during the wettest part of the year the rain falls in almost a steady downpour.

The ground is always wet except in the few spots where the sun sometimes shines on it. The soil is always feeding water into the streams and rivers. The little streams feed the Japurá and other rivers. These rivers pour their floods into the mighty Amazon. Finally, after many weeks, the water which falls far *inland* as rain reaches the great Atlantic Ocean.

The Village

The small village in which Pimwe lived stood in the forest some distance back from the river. It was well hidden by the trees. From the river it could not be seen at all.

A trail led from the river to the village. It also was well hidden by the thick undergrowth. Only Pimwe and the people of the village knew where the trail started. In this way the thick *jungle* protected the village from enemies.

At the end of this path Pimwe came out of the forest into a *clearing*, where there were no trees. In the middle of this open space stood a very large house, or *maloka*.

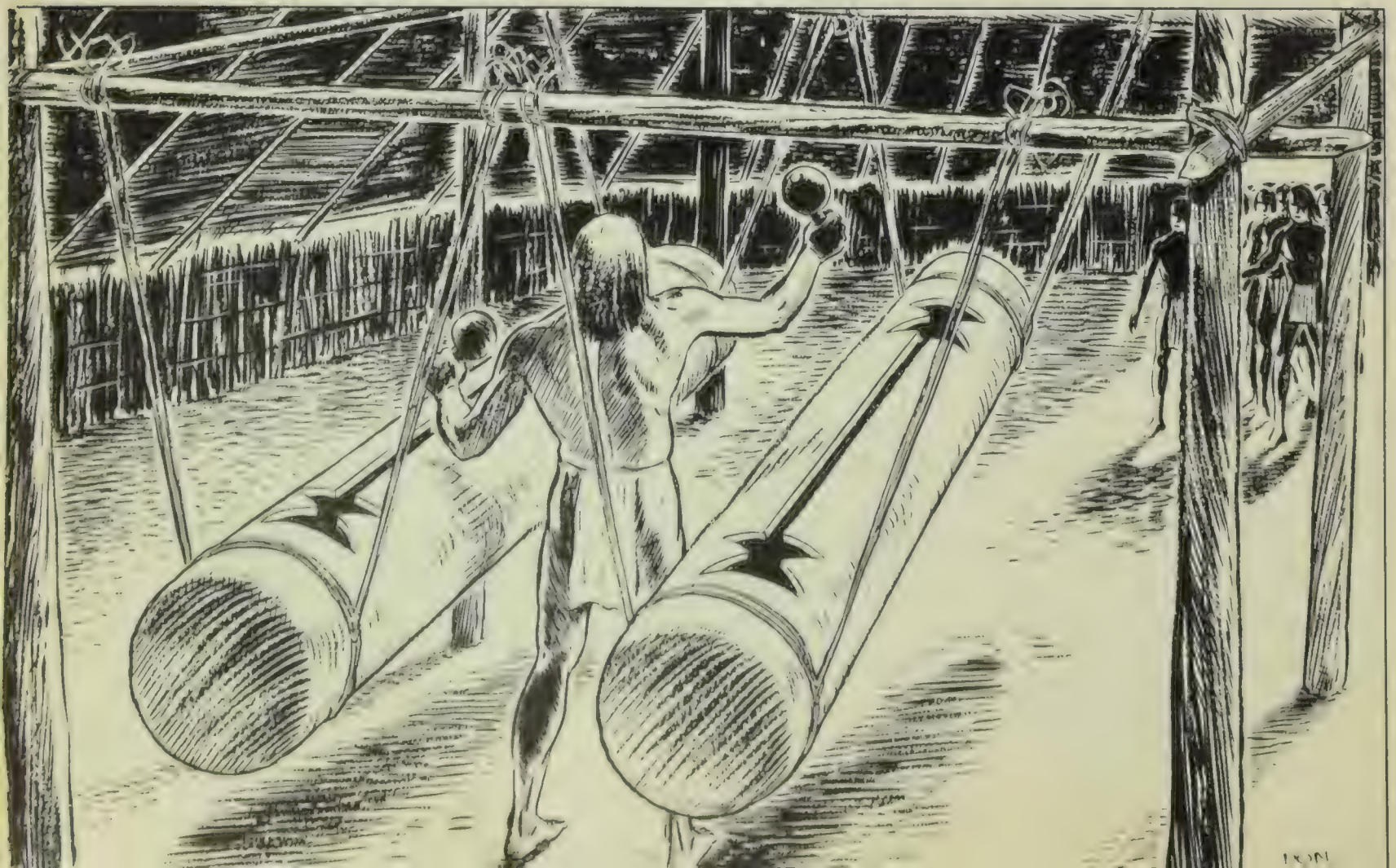
Pimwe ran to the door and entered. It was dark inside. He could not see very well at first. But at the far end of the

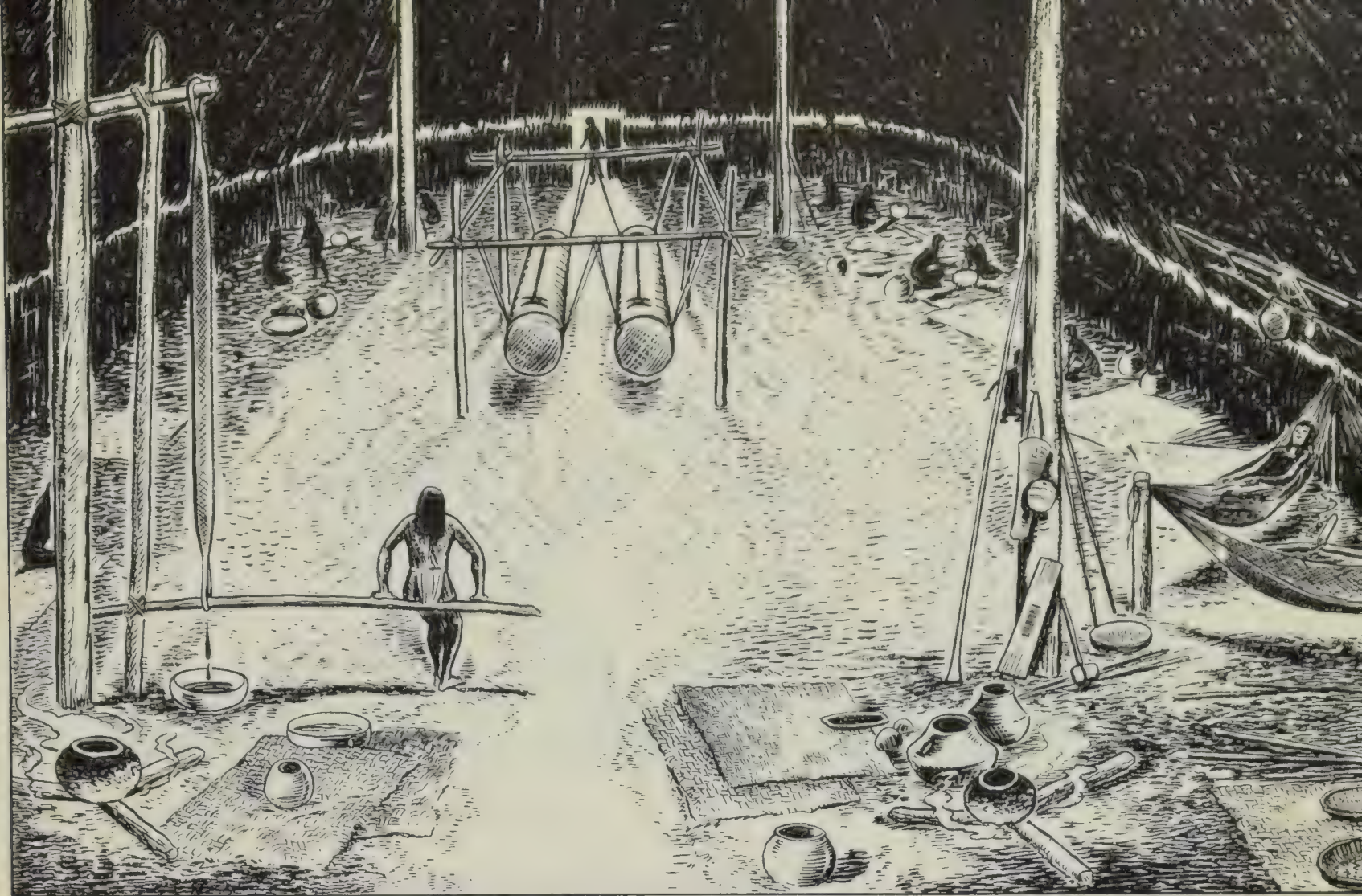
maloka he saw a group of men. He called out, "Andoke! Two canoes going downstream!"

Quickly they jumped to their feet. Men seized their spears and rushed to guard the river path. One of the men questioned Pimwe closely. He was the chief of the village. After hearing the story, he walked to the center of the *maloka*. There two huge drums hung from the beams above. They were made of tree trunks and were each about six feet long. The inside of each trunk had been hollowed out with red-hot stones and tools made of animal teeth. With rubber-headed drumsticks, the chief beat out a message on the two drums. This message called in all the people from the fields and the forest.

Soon men, women, and children be-

The chief beat out messages on two long wooden drums. In some places these drums had been hollowed out more than in others. Beating on them in different places produced different sounds. The chief could send almost any message by beating on the drums.





The inside of Pimwe's "maloka" was almost as large as a circus tent. Each family had its own living space and its own fire, but there were no walls to separate one family from another. Sometimes Pimwe and Bua and the other children played in the open space in the center of the "maloka."

gan to arrive. Everyone wanted to know what had happened. Pimwe had to tell his adventure over and over again. Each one was told by the chief what to do to help protect the village.

At sunset the men who had gone to guard the river and the paths returned to the *maloka*. The *jaguars* and other fierce creatures of the forest made the jungle very dangerous at night. The people of Pimwe's village feared these wild animals even more than they did the Andoke warriors.

The House in the Forest

The *maloka* in which Pimwe's family lived looked from the outside like a huge strawstack. It was big enough to hold all the people of the village. In most Boro villages all the families lived

together in this same kind of big house.

There were about twenty families in Pimwe's village. All these people were related. It was like twenty families of cousins, aunts, and uncles all living together in one house.

Because there were no windows in Pimwe's house, it was always dark inside. The two doors—one at each end—let in only little streaks of light. The only other light came from many small fires.

Each family had its own place along the sides of the huge *maloka*. And each family kept a fire burning all the time. As the families gathered around their fires for supper, the firelight was reflected in their faces. Above them it was so dark that they could not see the roof.

Things to Talk About

1. When was the last time you were in a forest? How was it different from the forest in which Pimwe lived? What made Pimwe's forest dangerous?
2. How was Pimwe's village different from the villages that you have seen or heard about?
3. What would you like about living in Pimwe's *maloka*? What would you dislike?
4. How does the rain that falls in Pimwe's forest reach the ocean?
5. What interesting things did you learn about the Amazon River?

Things to Do

1. Notice how the words *Pimwe*, *undergrowth*, and *current* are printed on pages 19 and 20. All words printed in this way are to be found in a glossary, or little dictionary, in

the back of your book. Find all the words from the first five pages that are in the glossary. Learn what the words mean. Your teacher will help you say them.

2. Make some drums, or use toy drums, and send messages to each other. Let a certain number of drum beats stand for *danger*, another for *a deer was killed*, or any other messages that might be sent in the jungle.
3. Find the Japurá River on the map on page 21. Move your finger along it in the direction the current flows. Find the smaller stream that empties into this river. What do you see on this map that tells you the direction? Which direction is the village from the river?
4. Make a map of your own neighborhood, showing the roads, houses, and two or three places where something happened to you.

PIMWE'S FAMILY AT HOME

There were five people in Pimwe's family: his father, *Pika*; his mother, *Topo*; a twelve-year-old sister, *Kitse*; and a younger brother, *Bua*. Topo and Kitse did the cooking. The big meal of the day was in the evening.

Pika always ate his meal first. While the others waited, Topo told Kitse to push the logs farther into the fire. "You must never let the fire die out, daughter. Keep the logs burning so the pot will always be hot."

Kitse pushed the logs from her side of the fire under the cook pot. The food smelled good to Pimwe. As soon as Pika had finished, the rest of the family helped themselves. Each of them had a large palm leaf for a plate. They had no knives to cut their food with, and the only forks were their fingers.

On the palm-leaf plate they put meat, fish, and vegetables from the cook pot. There was *cassava* bread, too, which

Topo and Kitse had made. Everyone ate his fill, and together they nearly emptied the pot.

The Evening Story

When the different families around the *maloka* had finished eating, everyone sat quietly for a while.

"I wish our uncle would tell some stories about the animals of the forest," Pimwe whispered to Bua.

"Yes, so long as I am indoors I like to hear about them, too. But I should not like to meet some of them in the forest."

"You must learn to see them before they see you." Already Pimwe was teaching his brother the lessons he had learned about the dangers of the forest.

Soon their uncle began a story. Everyone in the *maloka* listened quietly.

This evening his story was about the noisy parrot, who was always chattering and telling secrets. Pimwe liked that



Pika has finished his meal. Now Topo and the children can begin to eat their supper. Everyone helps himself from the family cook pot, taking pieces of meat and other food from the cook pot and placing them on a palm leaf. There are no forks or spoons to eat with in the jungle. Shells and ladles are used to take food from the pot.

story. He had heard it many times. It was an old, old one. Even Pimwe's grandfather had heard this very same story when he was a boy.

The Boros told many stories about the animals of the forest. But they did not keep any farm animals or pets—not even parrots or monkeys. Cats and dogs were unknown in their part of the forest.

Some evenings Pimwe and Bua listened to stories about things that happened to their Boro *ancestors* hundreds of years ago. No one knows how long the Boros have lived in this region or where the first of them came from. But they were there long before the first white men came to the Amazon.

Early Morning in the Forest

When Pimwe woke up early the next morning, he felt chilly. This was the only cool part of the day in the forest.

Pimwe had been sleeping in his usual

place on the floor next to the fire. He reached out and pushed a log farther into the coals. It blazed up and soon threw out some heat.

Bua slept next to Pimwe on the floor. Their parents and sister each had a hammock hung from posts near the fire.

Before long the sun rose over the forest. It shone into the clearing where the *maloka* stood. Then the rays of early light came in through the open door. It was the beginning of a new day in the jungle.

As soon as Pimwe and Bua were up, they went to the river for a bath. This was the first thing they did to start each new day. After that they had some breakfast. No one ate much. Pimwe usually took some warm meat from the cook pot. Sometimes he munched on a piece of leftover bread. Usually he did not feel very hungry in the early morning.

DOING THE DAY'S WORK

Everyone in Pimwe's family was busy each day helping to keep the cook pot full. They never kept any uncooked food around. It would spoil too quickly. But the pot was always on the fire, and the fire was always burning. Every day meat, fish, and certain kinds of plants were added to the stew. Water for cooking and drinking was brought from the river in large pots carried on the heads of the girls as they returned from their morning bath.

The family got all their food from the neighborhood of the village. Vegetables and fruits were raised in their fields or found growing wild. Topo did the farming with the help of Kitse and Bua. Pika and Pimwe did the hunting and fishing.

The Women in the Field

Every day Topo, Kitse, and Bua went to their field. Every day of the year there was work to do if they were to have enough to eat.

When they went to the field, each one carried a wooden *digging stick*. This was a straight stick about four feet long with a pointed end. They also carried a basket, in which they brought back their food at the end of the day.

The field was not far from the clearing where the *maloka* stood. A short trail through the forest led to the field. Topo went first and the children followed her. Bua had a hard time keeping up with his mother and sister.

"Walk more quickly, brother," Kitse called to him. "If you are ever to be a hunter, you must learn to be swift."

"The boy was always a slow one," Topo said. "But when he starts chasing the quick-footed animals, he will learn to keep up with them. Then, my daughter, we shall have no one to carry our basket for us."

"But maybe we shall have more meat," Kitse replied hopefully.

Topo, Kitse, and Bua spent most of the time each day working in their field. They grew small crops of cassava, sweet potatoes, corn, and tobacco. Weeds grow so fast in the damp soil that much work is needed to keep them down. Crops grow all the year round in this land of no winter.



The Weather

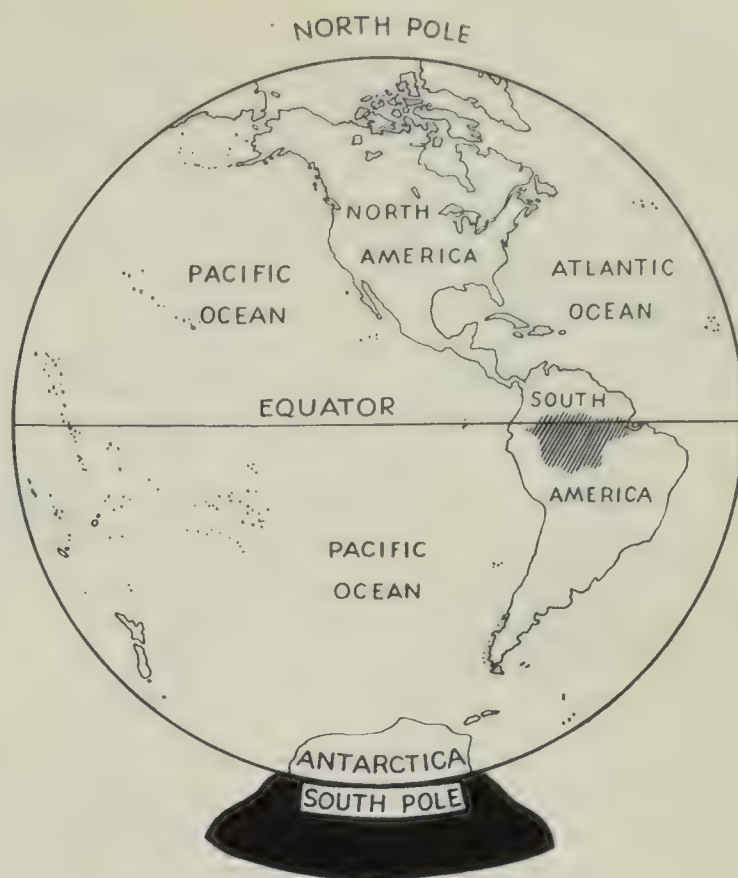
The rain had stopped falling, but the leaves were still wet. As Bua and his mother and sister walked along, rain water dripped on them from the trees. Their feet sank into the wet ground. For the shade from the many trees kept the sun from drying the damp earth.

Topo had never worried about having enough water to grow her crops. It was always wet in the *rain forest*. Part of the year it rained only twice a day, but from November to May it rained nearly all the time. Because it was always warm in the rain forest, Topo could plant her crops any time.

The Amazon rain forest, where Pimwe lived, lies halfway between the *North Pole* and the *South Pole*. On a globe it is crossed by a line called the *equator*. Of course, there is no real line like the equator on the earth itself, but if there were, it would form a circle about the earth exactly halfway between the two poles.

At the equator, day and night are always the same length. The sun shines high overhead every day of the year. There is no winter *season* of short daylight and low sun during which the earth can cool off. Summer lasts the whole year round. The *temperature* does not change from month to month, as it does in regions nearer the North Pole and the South Pole. One time of the year is about as good as another for growing crops. And the forests stay green the whole year round.

Kitse and Topo were soon busy in the field pulling weeds. As they worked, Topo shook her head, saying, "Our field is wearing out. Soon we shall have to



Find the Amazon rain forest on this map. It is the region that is shaded. Notice that it lies about halfway between the North and South poles.

move our village and make a new clearing. We used to have plenty to eat from our field. Now there is barely enough."

"But where shall we go?"

"The chief will tell us. Some day soon the men will meet and talk about moving. We must move soon, so we can continue to have bread."

The soil in the Amazon rain forests is very deep. Almost no stones are to be found. But even so, the fields remain good for only a few years. The reason for this is that the ground is always wet. The frequent rains soak the richness out of the soil. Then the fields can no longer grow good crops.

Topo, Kitse, and Bua worked in their field all morning cutting back the wild plants. These plants grew very quickly. They had to be kept cut so the food plants would grow.



The Boros use every part of the cassava plant. They boil the leaves and eat them as vegetables. The top branches, when stuck into the ground, take root and grow into new plants. Bread is made from the roots, after the poison is squeezed out. In the picture, Topo is braiding a cassava squeezer. It is a long tube made from strips of palm bark. The picture on page 23 shows how it works. Stretching the tube squeezes out the juice.

Cassava

The chief crop grown by these Indian people is cassava, or *manioc*. But they also raise sweet potatoes, corn, pumpkins, yams, beans, peppers, and pineapples. Some tobacco is grown, too.

The cassava plant grows three to four feet high. Its leaves are long and narrow and are eaten as green vegetables. No part of the plant is wasted. But the most useful part is the root. It is long and thin and looks somewhat like a sweet potato. The roots weigh from a half pound to two or three pounds, or even more. But the roots have to be carefully prepared before they can be used. These roots contain a poison which can kill anyone who eats it. But the Boros know how to remove the poison from the root of the cassava.

First, Topo soaked the cassava roots in water. Then she grated them. Her grater was a piece of wood. In it were set palm-

tree spines which were like needles. The Boros had no metal with which to make graters. But the palm spines made very good graters.

Next, Topo packed the grated cassava into a squeezer, one end of which was fastened to a beam overhead. When she pressed down on the long stick at the other end of the squeezer, juice dripped into a bowl. She kept the juice to use in cooking. By boiling it she got rid of the poison. When seasoned with peppers and fish, the boiled juice was used as a sauce.

Then Topo took the pulp out of the squeezer and dried and powdered it in her hand until it was like flour. Finally she heated this flour in a flat clay dish. The heat destroyed the last of the poison.

After she had done all this, she was ready to make bread. She added water, kneaded the dough into cakes, and baked it in a flat clay dish over the fire.

It was a long, hard task to make bread

from cassava. Fortunately, Topo did not have to spend so much time preparing the rest of the meal.

Clothing

While still very young, the Boro children learned how to make their living. They never had any lessons in a school-room. But from the time they were little they learned something every day by working with their parents.

Pimwe and his family made nearly everything they used. They made all their clothing and cooking utensils. They made all their tools except metal knives and stone axes. There was no metal to be found in this region. Pika had a stone ax. It was one of the few stone axes in the village. His father had received it in trade from a neighboring village. When he died, the ax was given to Pika. There were so few stones in this country that a stone ax was almost as scarce as a metal ax. Pika was fortunate to own one.

Pimwe had been making his clothing ever since he had been big enough to use an ax. When he was seven years old, he made his first *breechcloth*. He began by cutting a strip of bark about nine inches wide and six feet long from a tree. Then he separated the inner bark from the outer bark. He used only the inner bark. He soaked it in the river until it was soft. Next he took a wooden hammer and pounded the bark until it was like cloth. It was held in place by a string around his waist. A breechcloth was the only clothing he ever wore.

Leg bands were the only clothing Kitse had to make or wear. If there was to be a dance or celebration of some kind, the women painted brightly colored designs on their bodies. They wore necklaces of

nutshells and animal teeth. They did not need clothing for warmth because of the high temperature the year round.

Things to Talk About

1. Can you think of any reasons why the ways of the Boros are different from ours?
2. Why does food spoil so quickly in Pimwe's forest? What ways do we have of keeping our food fresh?
3. If you went to live with Pimwe, what are some things you would have to do differently from the way you do them at home?
4. Explain how the cassava squeezer in the *maloka* on page 23 works.
5. How did Pimwe's family divide their work? Which kind of work would you have liked best? Why?
6. Why didn't Pimwe go to school? What did Pimwe and Bua have to learn before they could go hunting?
7. What is the equator? How many interesting things can you tell about the land near the equator?
8. What is meant by *temperature*? What is the temperature like at the North Pole? What is it like at the South Pole? How does the temperature change from month to month near your home?

Things to Do

1. Make a list of all the words in this part of the story that are in the glossary. Rewrite your words so that they appear in the same order as in the glossary. The first word should be *ancestors* and the last *Topo*. After you have finished the list, try to think of the meaning of each word. Look in the glossary for the words that you do not know.
2. Find the equator on a globe. Trace it with your finger. Find where Pimwe lives.
3. Make figures of all the members of Pimwe's family out of clay or cardboard. Save them to put on your sandtable with the other things you are going to make.

LEARNING TO HUNT

One evening Pika said to Bua, "Soon you must stop going to the field with your mother. You are no longer a small child. You are a boy. You must learn to do a man's work."

"At first your legs will be slow. But you will run faster as you get older. Your eyes will become sharper, too. At first you will see only a few animal tracks. Later, when you have learned to look closely, you will see more. Sometimes it is better to have sharp eyes than swift legs."

The idea that Bua would go hunting pleased Pimwe. "Good," he said. "Then my brother and I can hunt together."

"Yes, after you have both learned to make your spears and darts. And after you know all the trails through the jungle. There are many things to learn. You must watch and practice every day. Tomorrow we shall begin teaching Bua to make spears."

As Bua listened, he said to himself that he had much to learn. But it would not be too hard, he thought. He had been

with the men sometimes when they were hunting. And of course he had caught many small animals himself. He knew where to find lizards and mice and snakes. And he had found sleeping turtles and flipped them over on their backs. He knew about these small, slow animals. Now he must learn about the larger, swifter animals which stayed deep in the forest.

Bua's First Spear

Next morning when Pimwe and Bua returned from their swim, they found their father waiting for them.

"Today we are going to make a spear for you, my young son. It need not be as long as a man's spear. A boy cannot use one over four feet long. But it must be smooth, and its point must be sharp."

So Pimwe, Bua, and Pika went into the forest. They found the hard palm tree from which spears are made. They cut enough pieces to make eight or nine spears. They took these back to the village. Then they sat down in the clearing near the house and made the spears.

"A spear must be smooth," Pika had said. So they started to scrape the palm sticks. They did this with the jawbone of a fish. Many tiny, sharp teeth on the bone made it very much like a file. Pimwe, Bua, and Pika each scraped on a separate stick.

"Be patient, my sons," Pika told the boys. "You will scrape many spears before you make one perfectly smooth."

Pimwe and Bua are making their spears in the clearing outside the "maloka." Pimwe is rubbing his spear with rough leaves to make it smooth.





New York Zoological Society

Jungle Animals

Many of the brightly colored birds and strange animals that we see in zoos were captured alive in the Amazon jungle where Pimwe lived. This baby tapir and its mother are among the animals found in Pimwe's forest. When it is older, the baby tapir will lose its queer stripes, and will look just like its mother. The Boro Indians use the tapir for food.

The anteater is a very queer-looking jungle animal. Its tongue is like sticky flypaper. The anteater digs into anthills with its sharp claws, collects many ants on its tongue, and eats them. Other jungle animals are monkeys, like the one on page 32, and fierce jaguars, like the one on page 43.

Erving Galloway



New York Zoological Society

This great snake, the anaconda, also lives in Pimwe's forest. Some anacondas grow more than thirty feet long. They are not poisonous, but they can wrap their powerful coils around an animal and crush it to death.





New York Zoological Society

This monkey lives in the treetops of the Amazon jungle. He is called a spider monkey because his long arms and legs make him look like a spider.

While the boys were still working, Pika had finished scraping with the fish jaw. Then he took a handful of coarse leaves and scraped some more. These leaves were almost like sandpaper. They made the spear very smooth.

After he had smoothed the spear, Pika made a spearhead. It had a long, sharp *bamboo* point. Later, when they were ready to hunt, the sharp point would be covered with poison. Then an animal hit by the spear would be quickly killed.

"We must also make a *blowgun* for my brother," Pimwe said to his father.

"Yes, but it takes a long time to make a blowgun. First a boy should learn to use a spear. And he must learn to set traps in the forest, too. When the sun has moved a little farther across the sky, the three of us will go and look at the traps I have already set. Perhaps we have caught something."

Pika had no clock. He told time by the position of the sun. If he wanted to tell someone when he had killed a deer, he pointed to the spot in the sky where the sun was when he killed it. The other person knew what time was meant.

A Trap in the Forest

Later that day, Pimwe and Bua went with their father to look at the trap. Pika carried his blowgun. Pimwe and Bua each carried some spears.

Pika did not follow a straight path through the forest. That was impossible. The trees and undergrowth were too thick. He walked a few steps ahead, then turned aside to pass some thick bushes. Next he stepped over a fallen tree lying across his path. The trees shut out most of the sunlight and made walking difficult in the dark forest.

All this time Pika was pushing aside vines and branches in his way. His hands were almost as busy as his feet! He had visited the trap many times, but there was no real path leading to it. All plants grew very quickly in this warm, damp country. They could overgrow any unused trail in a few days' time.

Pika was very careful how he moved the overhanging branches. The branches and vines were always covered with insects. There were ants and caterpillars, and sometimes snakes, too. Many of the ants and caterpillars could sting painfully. Usually the snakes would do no harm if let alone. But if one was disturbed or frightened, it might bite. And some of them were poisonous.

Because Pimwe and Bua were short, they had a hard time stepping over fallen trees. But it was easy for them to stoop under the low branches and vines.

Animals of the Jungle

Pika and Pimwe wanted to be sure that Bua saw everything. Bua had walked through the forest often, of course. He had always noticed many animal tracks. But he had never known what all these signs meant.

Pimwe stopped and pointed to the ground. "Look, brother! Here are the tracks of a *tapir*. He must have passed here only a short time ago. The tracks are fresh. Not a leaf has fallen on any of them."

"And," Pika added, "it looks as if the tapir were running fast. Perhaps a jaguar or some other animal was chasing him. The tapir eats only plants and fruit. He does not eat meat. So we can be sure he was not chasing another animal."

As the three of them moved along, they looked up frequently to watch the animals in the trees. For several minutes a pair of monkeys kept pace with them by

swinging from branch to branch overhead.

There were many beautiful butterflies and birds in the forest too. The birds lived mostly along the rivers. Many of the butterflies were very large and brightly colored. Some were blue; others were a golden yellow, green, black, or purple.

Everything was quiet in this great forest. The animals made very little noise. They did not want anyone to know where they were. Pika, Pimwe, and Bua walked quietly too.

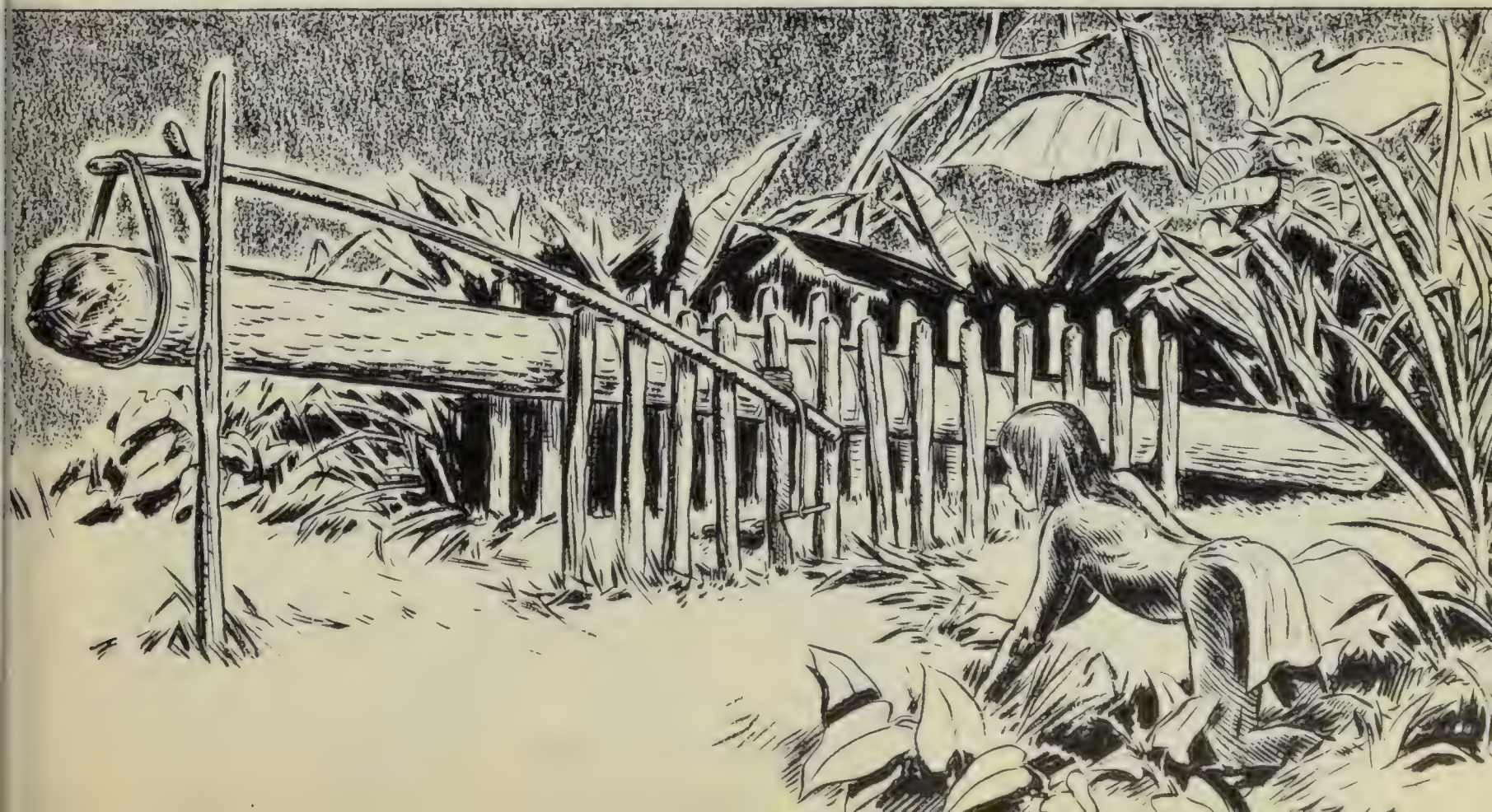
A Sudden Shower

Pimwe looked up into the treetops. He could see them swaying with the wind. The sky was growing darker. He knew that the afternoon rain was coming.

Suddenly it started to pour. But they kept on walking through the jungle. They had no clothing to get soaked. They knew the rain would soon stop.

After the rain, the whole forest was

Pika set traps in the forest to catch animals for food. He tied a piece of meat, or bait, to a stick inside the trap. If an animal tried to eat the bait, the stick would slip out of its notch. This would let the heavy log fall and crush the animal. Pimwe is disappointed because the trap is empty.



soaking wet. So was every plant and animal in it. The monkeys shook themselves to get rid of the water. The butterflies were so wet they could hardly fly. For several minutes afterward little showers fell from every overhanging branch.

"Come along," Pika called to the boys. "We must find the trap."

Pimwe darted ahead of the others. He was anxious to know what was in the trap. Soon he called back. "Father, the trap is empty." Pimwe was disappointed. He had hoped to find a wild pig, or at least a squirrel.

Pika was disappointed too. "I was afraid it would be like that. The animals are moving farther into the forest. They do not like the neighborhood of our village. This trap has been here for several days. If any animals still roamed this part of the forest, we should have caught one."

"But how can I learn to hunt and be a man if there are no animals?" Bua asked.

Pimwe and Pika laughed. "That is right. It does not do much good to be a clever hunter if you have nothing to hunt," said Pika.

"And how shall I ever kill my first deer?" asked Pimwe.

When they gathered around the fire for supper that evening, Topo looked at Pimwe. "Couldn't you find the deer you were going to kill?"

"No, Mother. We did not find anything. Even in the trap there was nothing. My brother will never learn to hunt if he sees only shadows and tapir tracks."

"That is right. Food is growing scarce around here. I heard your uncles say that the chief is calling a meeting of all

the men. It will be tomorrow. Many people think we should move the village to a place where there is more food."

"That is good," said Pika. "My brothers and I shall meet with the chief. We shall then decide what is best to do."

Things to Talk About

1. What did Bua have to learn before he could go hunting? What animals had he caught?
2. What weapons did the Boros use in hunting? What do hunters in our country use?
3. What did Bua learn about the forest, as he went with Pika and Pimwe to look at the traps?
4. How did Pika tell time? How many ways of telling time do you know?
5. Do you know any animal tracks when you see them? What can one learn from animal tracks?

Things to Do

1. Find as many pictures as you can of animals that live in a forest. Pin them up where everyone can see them. Which of these animals live in Pimwe's forest?
2. Make some spears and darts. Make them the right size for the family that you made earlier.
3. Model some jungle animals of clay or soap or cardboard, and save them.
4. Look in the glossary for the meanings of words that you do not know.
5. Make a model of Pika's trap, using pieces of wood and string.
6. The names of some interesting books about the people of Pimwe's land are on page 54. The author's last name is printed first. Next comes the name of the book. It is printed the way the words that are in the glossary are printed in the story. We call this kind of printing *italics*. The name and address of the company that publishes the book are then given. A little is told about each book to help you decide which ones to read.

THE BOROS BUILD A NEW VILLAGE

The next day at noon all the men of Pimwe's village met with the chief. They seated themselves in a circle around the chief's fire at one end of the *maloka*.

The chief and his family had more space in the *maloka* than the other families. He needed more room because any prisoners captured from enemy tribes belonged to him. Also all the unmarried young men of the village lived around his fire. They gave the chief everything they brought back from their hunting and fishing, and they were fed from his cook pot.

This chief's name was *Yabe*. He had been the head of the village for many years. He was a very wise man and knew everything about the forest.

The Village Meeting

When everyone was seated, one of Pimwe's uncles started talking about the forest and about hunting. He talked a long, long time. He told of the many

animals that had lived around the village when they first moved there four years ago. Now, he said, the animals have moved deep into the forest. They will not stay near our village. They are too wise.

From time to time as he spoke, the other men said "*Heu! Heu!*" to show that they agreed.

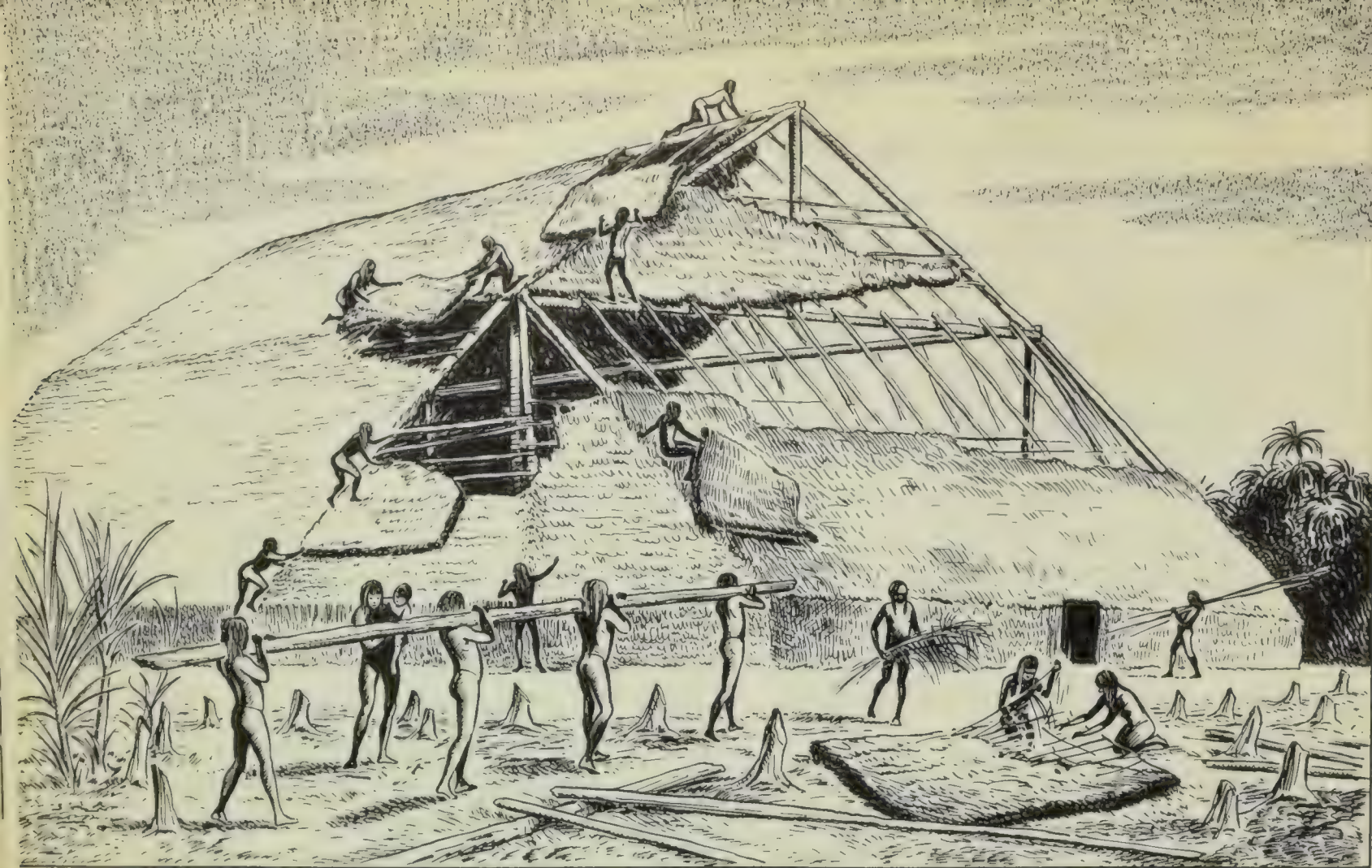
Then he talked about the fields and said the ground was no longer fertile. Everyone agreed with this too. "*Heu! Heu!*" they said again and again.

Then Pimwe's uncle mentioned the roof of the *maloka*. He said it was old and thin. He said it would not keep them dry during the rainy season ahead.

When Pimwe's uncle had finished speaking, he leaned forward and picked up a pot of tobacco which stood in the center of the circle of men. He dipped a short stick in the pot and wiped some of the liquid on his tongue. Then he passed the pot around the circle. Every-

When anything important had to be decided, *Yabe*, the chief, called a meeting of all the men to talk it over. Here we see Pimwe's uncle explaining why the village should move out of the old "*maloka*." Do you see the tobacco pot?





Building the new "maloka" was an exciting time for the men of Pimwe's village. Pika helped to put up the framework of tree trunks which supported the roof. Pimwe helped to make the thick palm-leaf mats with which the roof was laid.

one who agreed with him was supposed to dip the stick too. They all did so.

Then Yabe, the chief, began to speak. "My people, we must find a new place for our village. It must be well hidden by the forest. If it is too near the river our enemies may find it. And near the river live many insects. So we must put our village back in the forest where we shall be safe from all our enemies."

The men talked on for many hours. Finally, they decided on a place for the new village. The tobacco pot was passed again. Everyone dipped the stick.

They decided to begin work on the new *maloka* at once so that they could move into it before the season of heavy rains began. It would be easier to build the *maloka* now. And they wanted to be ready to plant their new fields during the big rains.

Building the New House

It took many weeks to build the new *maloka*. First came the hard work of clearing away the trees. The men did this by burning the largest trees and hacking down the small ones with their stone axes. This left large stumps still standing. But these would rot away in time. That part of the work was easy for the men.

Then came the task of building the huge *maloka*. Great tree trunks thirty or more feet high were set upright in the ground. Smaller tree trunks were tied with vines across the uprights. These formed the main support of the roof.

Building the roof was the next job. At its lower edges the roof came within three feet of the ground. It was made of palm leaves laid about a foot thick when finished. The roof had to be thick to keep

out the heavy rain. Even so, it would last only a few years. After that it would begin to leak. That was one reason why Pimwe's people had to move so often.

Close to the *maloka* they made a clearing for dancing. And beyond that were the fields. The men broke the ground for the fields with heavy, wedge-shaped digging sticks and pounded the clods of dirt into small pieces with clubs. After that the women did all the work in the field.

Moving Day

At last, they were ready to move. The whole family carried their belongings to their new *maloka*.

"You must help carry the spears," Pimwe told Bua. "Now you are a hunter. Let our mother and sister carry the women's tools."

"All right," Bua answered. "I should like to carry the stone ax, but probably my father will take that himself. He would not want to lose it."

"Yes, he will take the ax. And he will take a burning torch from our fire to use in starting a fire in our new house."

In the rain forest the wood was always so wet that fires could not be started by rubbing sticks, as Indians in the United States used to do. So each family had to light a burning torch from the old fire to use in starting their new fire.

Drum Messages

"Brother, Brother," called Pimwe to Bua one morning a few days later. "There is to be a great celebration. There will be dancing and singing. And we shall eat our fill of good food."

"What is the celebration?" Bua asked.

"The chief is going to invite our Boro neighbors from the near-by villages. He

will send a message on the signal drums. They are to come and help us celebrate the building of our new *maloka*."

That afternoon the chief sent out his invitation on the signal drums. The Boros sent messages from one village to another with these drums. Often one village could warn another village when enemies were near. On a clear day they could be heard at least ten miles away. When the people in one village received a message, they could send it on to the next village. In this way the news could be quickly sent to every village in the Boro country.

For many miles around Pimwe's village there were other Boro villages. In each there lived about one hundred persons. The Boro people all spoke the same language. They built the same kind of houses and used the same kinds of tools. And all the Boro villages were friendly with each other.

The Celebration

During the three days before the dance, everyone in Pimwe's village was busy. The women made cassava bread from morning until night. They also prepared a drink from wild jungle fruit.

In a clearing near the *maloka*, Pimwe and his cousins practiced a dance. The older children helped the younger ones learn the steps. They learned quickly, for they all hoped to do their best before the big crowd of friends.

Everyone grew more and more excited as the day drew near. It was not often that they saw people from outside their own village. They were eager for the news and the fun which their friends would bring.

All the people got out their finest orna-

ments and jewelry. With their palm-spine combs, they soon had their long hair straight and free from snarls.

Topo and Kitse took great care painting their bodies. With paint made from vegetables, they drew circles and bands on each other's legs and bodies. The designs were in black and white, scarlet and purple. Topo also had a beaded belt which she wore for dances.

Pimwe's father had a fine tall crown made of brightly colored feathers to wear on his head. It was as gay as the birds of the forest. He had a necklace made of many rows of polished nutshells. Around his arms and legs were other bands of nutshells. When he walked, they rattled merrily.

On the third day the guests began to arrive. Those from the nearest village came by foot through the jungle. But most of them came by canoe. Some came from *upstream*, the direction from which

the river flowed. Others came from *downstream*. These had to paddle their canoes against the current. They all wore feathers and paint and rattling necklaces. There were so many people that they nearly filled the little clearing.

The men played on their flutes, *pan-pipes*, and drums. Some sang long songs that seemed to have no end. Then the men formed in one line and the women formed in another. They all danced a step round and round the open space.

The dance went on for a long time. Pimwe and Bua sat together near one of the great bonfires. It was very exciting for them to see so many people and to hear the music. They both felt somewhat shy. But they watched everything and everyone.

The guests stayed for four days. And they danced nearly all that time! By the time they left, everyone was tired. But they had all enjoyed themselves.

Day after day the celebration continued. Pimwe never tired of watching the dancers and listening to the music of the panpipes, flutes, and drums. The dancers swayed forward and backward in time with the music, and stamped their feet. Everyone enjoyed the celebration very much.



Trading Between the Villages

Topo had obtained a new hammock during the celebration. A woman from one of the other villages had traded it to her in return for a shell necklace.

This hammock had been made by a woman of the *Witoto* tribe. The *Witoto* woman had given it to a *Boro* woman living near by in return for some fine mats. It was this *Boro* woman who brought it to Pimwe's village and traded it to Topo.

Topo was pleased to have this fine hammock. The *Witotos* were famous for making the best hammocks in the Amazon country. The *Boros* made very good mats. Another tribe made excellent pottery. Whenever they could, the people of friendly tribes traded these things back and forth. But most of the things that these people needed they had to make for themselves.

Things to Talk About

1. Why did the chief have more room in the *maloka* than anyone else?
2. When the men of the village met, what reasons did they give for wanting to move?
3. How did the other men show that they agreed with Pimwe's uncle? Do you know of other ways of showing that one agrees with a speaker?
4. How was building a *maloka* different from building a house near your home?
5. How was moving day with the *Boros* different from our moving days?
6. How did Pimwe's people get ready for the celebration? What did they do after the guests arrived?
7. The *Boros* traded as they did because they had no money. Have you ever traded in the same way? In any other ways?

Things to Do

1. Build a *maloka* to put in the clearing on your sandtable. Use sticks, string, and grass



LaVarre—Gendreau

The Amazon Indians make very good mats by weaving palm leaves together. Sometimes they use these mats to sleep on. Sometimes they use them to cover the doors of their homes. Sometimes they trade their mats for other things they need.

or straw. Make the people of cardboard, clay, or clothespins, and show them moving to the new *maloka*.

2. Learn from the map on page 21 how far the new village was from the old one. Which direction is *upstream* on the map? Which is *downstream*?
3. Choose a group of boys to make a play of the story of the village meeting, and give it for the others.
4. Find out what kind of village or town meetings are held where you live. What is talked about in those meetings?
5. The girls may make a play showing how the women prepared the food for the celebration. They should talk about all the things they think the women might have talked about.
6. Draw a picture showing two Indians trading things that they have made.
7. Try to get some long grass or leaves and weave a mat as the Indian in the picture on this page is doing.

HUNTING AND FISHING WITH PIKA

Soon after the celebration, the heavy rains began. It rained and it rained. Sometimes the rain fell all day long. Everything was soaking wet all the time. The people in Pimwe's village were glad they had a new thick roof on their *maloka*.

But even during this season of heavy rains, Pimwe and his father went on with their work. Rain or shine, they had to find food or starve.

One day they wanted to catch some fish. So they went to a narrow stream near by and built a fence of palm branches across it. They wove their fence very tightly. Only the very smallest fish could get through.

Pika had brought some roots of the *babasco* plant. He had pounded these until they were soft. He put these roots in the stream above the fence to poison the fish. The current then washed the fish against the fence, where all Pimwe and Pika had to do was to take them out of the water with a net.

A Narrow Escape

Before they returned to the village, Pika and Pimwe went down to the big river. They wanted to find some turtle eggs. Pimwe walked along the top of the riverbank. Pika walked below by the edge of the river.

Pimwe noticed that the river had risen higher in the last few days. The heavy rains were filling it. The slow, wide river was climbing higher and higher up the banks.

Suddenly Pika called to Pimwe. "My son, my son, look out! The bank is caving in. You will fall into the river!"

At that moment Pimwe felt the ground give way under his feet. A huge chunk of earth broke loose and began sliding into the river. Pimwe scrambled toward solid ground as fast as he could, but the bank crumbled too fast. A second later he found himself in the river, struggling in a tangle of roots and vines.

Pika came running and plunged into the river. He soon got Pimwe loose, and they both climbed out upon the bank. Then they sat down to catch their breath before returning home.

The Medicine Man

"Before we can go hunting tomorrow," said Pika one evening, "we must have some poison for our spears. We shall ask Ukahe if he has some for us."

Ukahe was the *medicine man*, or doctor, in Pimwe's village. He was old and wise.

Ukahe was a very important person. He knew more about the plants and animals of the jungle than anyone else. And he knew how to cure many diseases. When anyone was sick in the village, Ukahe was always called to cure him. If Ukahe could not cure him, no one could.

If bad luck came to the village, Ukahe had to drive it away. He knew about all the good spirits and all the bad spirits. He was not afraid to walk alone in the forest. No one else dared to do that.

All this knowledge had been passed down from one medicine man to the next. Now Ukahe was training his son to be a medicine man. It would take many years of training and much skill to learn all that Ukahe knew. It had taken Ukahe many years to learn his father's secrets.

The poison which Pimwe and Pika needed was very valuable to the Indians of the rain forest. Only the medicine men knew how to make it. It was so powerful that a small drop on the tip of a spear could kill an animal. But the poison did not spoil the meat for food.

Pimwe and Pika got some poison from Ukahe. In return they gave him a turtle which they had caught the day before. The next morning Pimwe, Bua, and Pika went out to hunt.

The Deer Hunt

"My son," Pika said to Pimwe as they set off, "if you do not kill a deer soon, your young brother may get one before you. He is learning rapidly how to hunt."

"I shall kill a deer today," answered Pimwe, "if I have to hunt all day long." He did not like the thought of Bua's getting ahead of him.

They started off into the forest behind the *maloka*. Pika carried his blowgun and spears. Pimwe and Bua each carried seven spears.

Slowly and carefully they moved through the jungle. They did not want to miss the tracks or frighten any animals by walking too fast. There were many more animals in the forest here than there had been around the old *maloka*. But even so the hunters had to be careful. Any little noise might frighten the animals away. Then there would be no supper!

High above them the trees rose tall and straight. Sometimes the lowest branches on the trees were sixty feet above the ground. Hanging from the branches and twisting around the tree trunks were many vines. Often the vines were covered with still other plants.



Ukahe, the medicine man, is teaching his son how to make the poisons which Pimwe's people use in fishing and hunting. Only Ukahe knows the secret of how this poison is prepared.

This very thick growth made it hard to move quickly in the forest. But it was hard for the animals too! They could not run much faster than a man.

As they went along, Pika watched for some birds. He wanted to kill one with a dart from his blowgun. Then they would have a little meat for supper.

Pika's blowgun was twelve feet long—much longer than he was tall. It was a hollow pipe made from palm stems. Pika carried the darts for the blowgun in a bamboo case.

Before long they heard some birds overhead. Pika stopped and looked up. He saw a *macaw* high in a palm tree. Quickly he took a dart from his case. Putting the dart in the blowgun, he raised the mouthpiece to his lips. He aimed at the bird and blew into the gun. The dart flew silently and swiftly straight to the mark. The macaw fell to the ground, killed by the poisoned dart.

The boys were pleased that their father had killed a bird. But they were eager to go on and find some larger animals to kill.

"Come now," said Pika, "we shall go to a pool I know. There will surely be some animals near it. If we are lucky, we may find a wild pig or a *sloth*."

Pimwe said nothing. He was thinking of the deer he wanted to get.

They kept on for some time without seeing any new tracks. On and on they went, watching and listening. Suddenly, Pimwe stopped. His father and Bua stopped too.

"I think I hear him," Pimwe whispered. "I think I hear a deer."

All three listened. A soft noise came from the jungle, as of something moving through the bushes. Pimwe started forward in a hurry.

"Wait," whispered his father. "It is very close. Let it move on. Then we shall find its tracks."

The three waited in silence, hardly daring to breathe. They knew that animals' ears were as sharp as their own.

"Now," said Pika, after a few minutes, "let us follow him."

They soon found the tracks. Pimwe had been right. They were the tracks of a deer.

"We are not far from the drinking pool," Pika whispered. "The deer seems to be heading for it. There he will stop long enough for us to overtake him."

"And then I can kill him," said Pimwe.

Pika nodded. "But be sure there is only one animal before you strike. If you hit one and another sees you, the second will rush at you. He might even kill you before you can defend yourself."

In a few minutes they saw a small clearing ahead. It was the pool. Silently they crept toward it. Sure enough, the deer was there, drinking from the pool. He had not heard them.

Pimwe was trembling with excitement. Without a noise, he moved closer and closer. His father and Bua kept close behind him. The deer was still drinking.

When Pimwe was about thirty feet from the deer, he lifted his spear. Carefully he aimed. He knew that if he missed, the deer would quickly disappear into the forest.

With all his strength and skill Pimwe

The Indians carry blowguns when hunting. These guns are from eight to fourteen feet long. The Indians can blow a dart from one of these guns for distances of from forty to one hundred and fifty feet. They rarely miss what they aim at.

Paul's Photos





Pimwe did not know that a jaguar had its eyes on the deer too. Perhaps if he had known, his spear would not have gone so straight. It was lucky for Pimwe that Pika could throw a spear straight too. Jaguars are very fierce when hungry.

hurled the spear. He hit his target! The deer took a leap forward and fell dead.

Pimwe was rushing forward to seize the deer when they heard a loud crash from the other end of the clearing. Suddenly a jaguar leaped out of the forest. It, too, had been following the deer.

Pika saw Pimwe's danger. The jaguar was about to attack him. Quickly Pika raised his spear and hurled it at the jaguar. With an angry snarl the beast fell beside the deer. Pimwe had had a narrow escape. But at last he had killed a deer.

Things to Talk About

1. Have you ever gone fishing? How did you fish? How is the Boros' way of fishing different from yours?
2. From what danger did Pimwe escape? Have you ever escaped from danger just in time?
3. In what ways is the medicine man like our doctor? In what ways is he different?
4. Do you think Pimwe or his father was more pleased over the killing of the deer? Why?

5. Why do the Boros hunt with blowguns and spears instead of with shotguns and rifles?

Things to Do

1. Make a toy blowgun by rolling a paper into a small tube. Stick some cotton on a toothpick and push it into the end of the blowpipe to use as a dart. Put up a target and try to hit it with the dart.
2. Make a list of some of the things our doctors know that the Boro medicine men do not know.
3. Draw pictures that tell the story of the hunting trip. Fold a large paper into four parts. Draw a picture on each part. Call your group of pictures a *picture story*, because it will tell a story.
4. Choose people to act out the story of the hunting trip.
5. If you know someone who has had an exciting hunting or fishing trip, invite him to school to tell about it.
6. Tell about the books that you are reading. Perhaps you would like to read the most interesting parts or the most exciting parts to each other. Show some of the pictures that you like best.

WHITE TRADERS

A few days later the chief called the men of the village together. When they had all seated themselves in a circle, the chief began to speak.

"I have news of traders. Some white men are coming soon. They will bring metal knives, fishhooks, and many other things which we need. They will trade these things for our rubber, Brazil nuts, and *sarsaparilla* roots.

"Our cousins who live down the river have sent us this news. The traders have already stopped at their village. You three," he said, pointing to some men near him, "go down to the river. Stay there and watch for the traders' canoes. You can show them the path that leads to our village."

It had been four years since white traders had visited the people of this village. Pimwe could barely remember

them. Bua did not remember ever having seen white men.

Gathering Rubber

Pika and Topo decided they wanted a metal knife from the traders. So the day after the chief's announcement Pika and Pimwe went to the forest to gather some rubber to give in trade.

Pika took his stone ax and some clay pots. When they found a rubber tree, Pika cut a slash along the bark with his ax. Out of this cut, the liquid rubber slowly flowed into the pot.

Rubber trees grew wild in many parts of the rain forest. With this rubber, Pimwe's people made the heads for their drumsticks. They also used rubber in place of razors. When they wanted to remove the hair from their faces and bodies, they covered their skin with liq-

In boats like these, traders travel up and down the many rivers of the jungle. They exchange knives and axes and other things for the products of the rain forests, such as rubber, Brazil nuts, and sarsaparilla roots. The traders cover part of their canoes to protect their goods against sudden rain, for in this land it rains many times every day.

Courtesy Jack Harding, "I Like Brazil," Bobbs-Merrill (1941)



Pika and Pimwe worked day after day gathering rubber to trade for the things they wanted from the white men. It was not easy to hold the heavy sticks over the fire so the rubber would harden. But when they saw the fine knife, they were glad they had worked so long.

uid rubber. When the rubber hardened they pulled it off. Off came the hair too!

Pika and Pimwe took several pots full of liquid rubber home with them. There they dipped sticks into the liquid and held them over the fire. The heat and smoke hardened the rubber. In this way they added layer after layer of rubber. Finally they had two huge balls ready for the traders. They hoped they were big enough to pay for a metal knife.

The Traders Arrive

Three days later the traders came. There were two of them. With them were six Indians from far down the river. They belonged to a different tribe, but they understood the Boro language. These Indians acted as guides for the traders. They hunted for them too.

The traders had learned long ago that the only way to live in the rain forest was the way the *natives* themselves lived. But the white men did not know how to hunt, fish, or paddle as well as the natives. For this reason they took Indian guides with them on their trading trips. Then they got on very well and had plenty to eat.

First of all, the traders had a long talk with the chief. They told him all the news from the villages down the river. They told him a little about the world of the white men. The traders and the chief talked all day. Then they passed the tobacco pot around, as the Boros always did after a meeting.



The Traders' Goods

On the second day, the chief gave the word that the trading would start. The traders spread their wares out on the ground. They had knives of all sizes and shapes. And there were metal axes too. Pimwe and Bua looked on with great interest. They could not believe there were so many metal knives in the world.

There were also some bright-colored beads in the traders' packs. And there were buttons, needles, thread, and many trinkets. There were even some steel fishhooks.

The things which Pimwe liked most were the metal tools and fishhooks. He looked at these things a long time.

Pimwe and Bua were anxious to see which knife their parents would get. There were three different kinds. Pimwe hoped they had enough rubber for the biggest. Topo and Kitse had gathered some Brazil nuts to trade. Maybe with the nuts and rubber they could get the big knife.



Pika looked at the knife very carefully and felt its sharp blade. He must be sure it was a good knife before he traded his rubber for it. Topo liked the bright strings of beads. Pimwe showed Bua the axes and knives and fishhooks, for Bua had never seen white traders' goods before.

Making the Trade

Topo and Pika looked at the traders' goods many times. Finally they brought out the rubber and nuts. The traders looked at the things very carefully. Then one of them told the Indian guide to ask Pika what he wanted.

Pika thought his rubber was worth a great deal. He said he wanted the biggest knife and three fishhooks for it. The traders said the rubber was not worth that much. Finally Pika said he would trade for the knife and some beads.

Pimwe was beginning to worry for fear they might not get the biggest knife after all! But this time the traders agreed. They handed Pika the knife and beads and took his rubber and nuts in exchange.

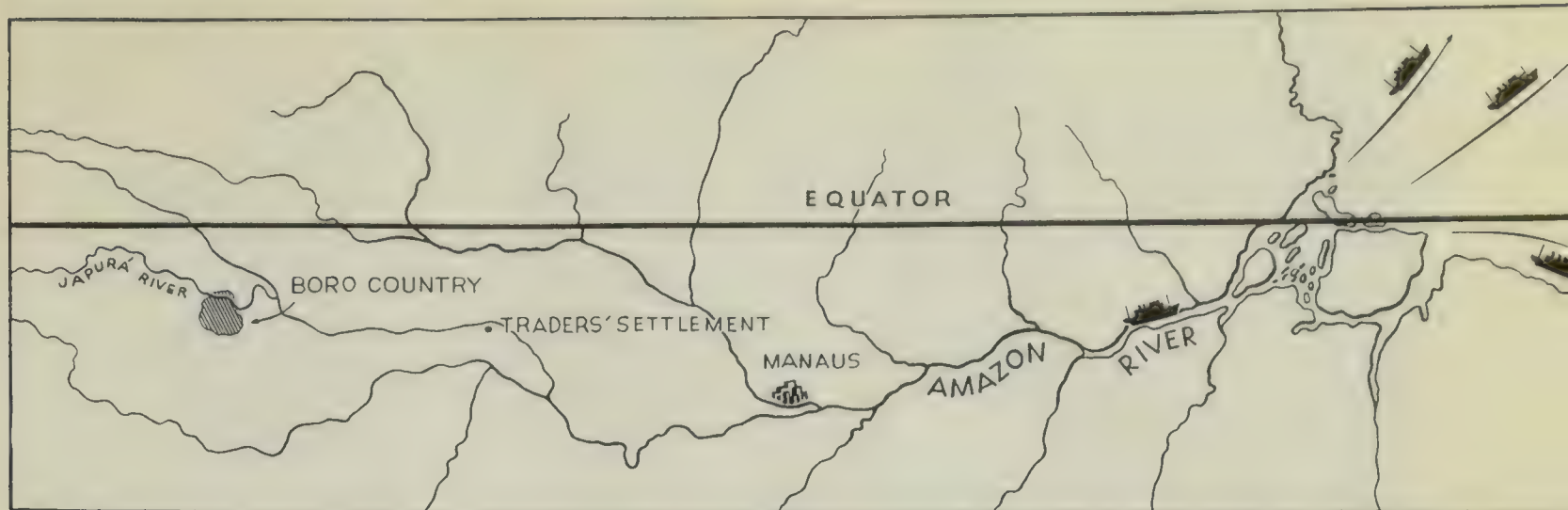
Next day the traders loaded all the rubber, nuts, sarsaparilla roots, and other articles into their canoes and started off down the river. It might be three or four years before Pimwe would see another white man. Again he told himself that

some day he would go and see what the world was like where these white men came from. But that could not be for many years yet. Meanwhile he would have to go on being a jungle boy.

The World of the White Traders

The traders lived in a white man's settlement many miles down the river from Pimwe's village. But they were not at home very often. Most of their time was spent traveling up and down the river, visiting the villages and trading with the natives. They always traveled by canoe because there was no other way to get about in the jungle.

Other traders living at the settlement also traveled up and down streams trading with the Indians. The rubber, nuts, and other products which they gathered were brought to the settlement and sold to traders from a city called *Manaus* on a branch of the Amazon. The 1,200-mile trip down the Japurá and the Amazon rivers to Manaus was made by motorboat. It usually took two weeks.



This is really a highway map of the Amazon jungle, for it shows the only highways there are—the rivers. Everything that goes in and out of the jungle must travel over these river routes. Ocean-going vessels sail up the Amazon to Manaus, where they unload their cargoes from the outside world and reload with the products of the forest.

For all this distance, the rivers flow through dense rain forests like those in which the Boros lived. All the great Amazon region is a hot, wet jungle. A few thousand white people live here and there along the main streams. But most of the region is inhabited only by scattered tribes of Indians and by wild animals. Throughout all this great region, rivers are the only highways. There are no roads or railroads.

The Boro Indians live in a part of the Amazon Valley that few white men have ever visited. Their ways of living have changed very little in hundreds of years. But in the other parts of the valley the Indians have recently taken on many of the ways of the white men, and they now live quite differently from the Boros.

Many of them live in or near the white men's settlements, and do the kinds of work that white men have taught them to do. They cut down the trees of the forest and saw them into lumber. They tan the hides of animals and make them into leather. Some of them work on rubber plantations. A few have even settled

down in the larger cities like Manaus, and learned the use of electric lights, streetcars, and motorboats. How strange all this would seem to Pimwe in his jungle home near the banks of the Japurá!

At Manaus the products of the jungle are bought by traders who load them on ocean steamers and ship them off to distant parts of the world. For although Manaus is 1,000 miles from the mouth of the Amazon River, it is a port for ocean vessels. What does that tell us about the size and depth of the river?

Many of the jungle products shipped from Manaus are brought to the United States. On their return journey the ships carry metal knives, fishhooks, and other products of our factories. These are the articles which the traders give to the Indians in exchange for their rubber, nuts, and other products of the rain forest.

Although Pimwe's people live many thousands of miles away, they need some of our products. We in turn need theirs. We get many kinds of medicine from the Amazon forests. Perhaps some of the rubber in our galoshes was gathered by



Courtesy Jack Harding, "I Like Brazil," Bobbs-Merrill (1941)

In the wet season, the river at Manaus is sometimes as much as forty-five feet higher than in the dry season. Because of this change in the depth of the river, Manaus uses floating wharves that rise when the river rises and fall when the river falls. Large ocean-going vessels sail up the Amazon to the river port of Manaus.

Pika and Pimwe. Or the Brazil nuts in our Christmas stockings may have been collected by Topo and Kitse. That is why we may think of the Boros and the other people of the Amazon jungle as our "friends," though we have never seen any of them and probably never shall.

Things to Talk About

1. How many reasons can you think of for the Boros' wanting the traders to visit them?
2. Why did the trading not start as soon as the traders arrived?
3. How do the Boros use rubber? How do we use it? Have you eaten Brazil nuts? Do you know how sarsaparilla roots are used?
4. Which of the things that the traders had with them would you have wanted? Which of the things that they got from the Indians?
5. Why should we think of the Indians of the Amazon jungle as our friends?
6. Tell about everything you think the traders

saw as they traveled up and down the river highways.

Things to Do

1. On a globe, trace the journey of a Brazil nut from Pimwe's forest to your own part of the United States.
2. Find as many pictures as you can of things that are made of rubber. Paste these pictures on a large piece of paper or a chart.
3. Look at your sandtable and decide whether or not it is complete. Does it show Pimwe's home and all the interesting things around it?
4. Draw pictures of the different kinds of boats on which goods traveled from Pimwe's home to the United States.
5. Choose a group to act out the trading scene.
6. Make a picture story that shows the travels of rubber from the forest to the United States.
7. Make riddles for the others to guess about the people, animals, or things in any part of the story.

OTHER HOT, WET FOREST LANDS

If we were to travel around the earth, always keeping close to the equator, we should find other regions much like the one in which the Boro Indians live. There are many such regions in the world.

The first one we should reach after crossing the Atlantic Ocean would be central Africa. The *Congo* River, which flows through this region, is not so long or so wide as the Amazon. But the jungles which line the banks of the Congo for hundreds of miles in all directions are very similar to the hot rain forests of the Amazon.

The people who live in the Congo rain forests are not Indians. They are Negroes. In many other ways, too, they are different from the natives of the Amazon jungles. They have learned to do a number of things that the Indians cannot do. Yet they build their homes of similar materials. Many of them eat some of the same foods, wear about the same kind of clothing, and hunt and fish much as the Boros do. They even thump out messages on drums like those of the Boros.

After leaving Africa, our journey along the equator would take us across the Indian Ocean to the large group of islands known as the *East Indies*. Again we should see a region of hot, wet jungles and find people living much the same kind of life as the natives of the Amazon and Congo rain forests.

A short distance north of the equator we might visit still another land of high temperatures and heavy rainfall. This is the region which is shown on maps as a long arm reaching down from the continent of Asia toward the East Indies.

Its name is the *Malay Peninsula*. The word *peninsula* means "almost an island." Does that make it any easier to find on the map?

The Malay Jungles

The forests of the Malay Peninsula are much like the one in which Pimwe lived. It is dark and damp under the tall trees, and the bushes, vines, and grass are so thickly tangled that one can hardly walk through them.

Trails have been made through the thick undergrowth by elephants and other large animals. These trails are used by the people who live here.

The Malay jungles are so much like those of the Amazon that many of the

This map shows the routes over which ocean-going ships carry goods and passengers between some of the seaport cities of our country and Manaus.





The shaded parts on this map show the hot, wet forest lands of the world. There are such lands on every continent in the world except one. There are other hot lands near the equator, but they are hot dry grasslands or deserts. Can you find the region in which Pimwe lived?

same plants grow in both regions. Rubber trees and cassava grow as well here as they do along the Amazon. They were first brought to this region by white men after they had been found growing in South America. Now more rubber and cassava are produced on the Malay Peninsula than are produced in the Amazon region. Rubber is grown on great clearings called *plantations*.

The People

Many tribes of black-skinned people live in the Malay jungles. Pimwe would be surprised if he could see them, for they are much shorter than the Boros. Most of them are less than five feet tall.

Like the natives of the Amazon Valley, they have learned to use the plants and animals of the forest for food. They have also learned to make their homes, their weapons, and their clothes from the products which they found about them.

Besides these short black-skinned peo-

ple there are many brown-skinned people called *Malays* living in different parts of the jungle. They are taller than the black-skinned people, and they have learned many new ways of living from the people of other lands who have come there. Many of the Malays work on the rubber plantations.

Jungle Homes

The black-skinned people of the Malay jungles live in groups, as the Boros do. Each group is made up of families who are related to each other. They always listen to what the oldest man in the group says, and they do whatever he tells them to do. He is like the chief in Pimwe's village.

Villages are built in clearings in the forests. Sometimes the homes are long houses much like *malokas*. In other villages each family has a small hut of its own. The roofs are made of leaves and bark. These huts are sometimes built

This native boy is tapping a rubber tree on a plantation on the Malay Peninsula. A strip of the bark is cut off and liquid rubber flows into the cup which is attached to the tree. Before the war, most of the world's rubber supply came from the Malay Peninsula.

Dickason—Ewing Galloway

high above the ground and even high up in the trees, where they will be above high waters during the season of heavy rains. The people are also safer from the wild animals in these houses.

The people in some tribes go from place to place looking for food. Because they stay in one place such a short time, they build the simplest kind of shelters out of palm leaves. Or they sometimes sleep in caves.

Food in the Malay Jungles

Many foods are found growing wild in the jungles. The women gather fruits, nuts, roots, leaves, and other things that they find good to eat. The men kill rats, squirrels, and many other animals for food. They also catch fish in the rivers.

Among the brown-skinned Malay tribes sugar cane, rice, cassava, sweet potatoes, and watermelons are raised in the clearings near the homes. Bread made from the roots of the cassava plant is an important food here, just as it is with the Boros. These people also have learned to take the poison from the roots before eating them.

Like the Boros, some of the tribes keep the logs in their fires burning night and day. But they do not always have a cook pot. They often cook food in a hollow bamboo stem. The food has time to cook before the stem burns through.

The big meal of the day comes in the evening. The women and girls get the food ready and serve it to the men and



boys. Banana leaves take the place of plates, and fingers serve as forks. After the men have finished, the women and children eat. All sit on the ground while eating.

Hunting and Fishing

The men go hunting with blowguns, which are like those of the Boros except that they are made of bamboo instead of palm branches. The poisoned darts which they shoot from them are as sharp and pointed as pins. Short blowguns are made for the boys, but the ones that the men use are eight to twelve feet long.

Hunters also use bows and arrows, which are made of wood and vines. And many animals walk into the traps and snares which the hunters set for them.

Fish are caught in a kind of basket that is made of bamboo or a net that is made of bark or vines. The sap from poisonous roots is sometimes put into the



In other jungle regions that lie near the equator, there are many animals that are not found in Pimwe's forest. There are lions, tigers, leopards, and also elephants. Many herds of elephants roam wild. But a great many are captured while young and trained to do much useful work.

Cowling—Ewing Galloway

water, and the fish that get some of this poison are easily caught.

The Work of the Women

The women are always busy. They start out early in the morning to look for food. The fruits, roots, and other foods that they find are put into baskets which they wear strapped on their backs.

The baskets are made of *rattan* or bark, and the women spend part of their time weaving them. They also make cloth from bark. They pound the bark until it becomes soft. It is washed and dried several times, and then it is ready for use.

Besides doing these things and looking after the children, the women work in the gardens. They build the shelters, too, and they sometimes help with the fishing.

Clothing and Trading

Because it is so warm in the Malay Peninsula, the people do not need to wear much clothing. Some of them do not wear much more than a girdle or a cloth around the waist. This cloth hangs down like an apron or is worn like a breech-

cloth. It is often made of long pieces of bark.

The women and girls like to wear necklaces and bracelets made of strings of rattan with seeds, teeth, shells, and other things tied to them. They also wear combs made of bamboo in their hair.

The forest people of the Malay Peninsula trade with each other, but they do not trade as the Boros do. The people of the black-skinned tribes are afraid of strangers, and they usually run when they see them. But they have learned to trade with the Malays.

A bag of salt, some tobacco, or something else that the forest people will want is left in a certain place in the jungle by a Malay trader. When he goes back a day or two later, he will find some perfumed wood, some tree gum, or some other product of the region in its place.

Forest Peoples

It may seem strange that the forest people of central Africa and of the Malay Peninsula are so much like the Amazon Indians of South America. They live

thousands of miles apart, yet their houses, their foods, their clothing, and their ways of doing things are often somewhat similar.

This is really not so strange as it seems. The reason for it is that the places in which these people live are much the same. If Pimwe could visit one of these other hot rain forests, he would soon feel quite at home. He would find some of the same plants and animals. He would see the sun high overhead every noon as it is in his own country. He would find about the same kind of weather.

The people in all these lands use the plants and animals they find there for food. They use the plants for clothing. And they build their houses of the materials which they find around them. They have all been living in these same regions for many hundreds of years, and they have gradually learned the best ways of living in the hot rain forests of the world.

Things to Talk About

1. How many regions can you name that are like Pimwe's region? Where are they?
2. What is the difference between a peninsula and an island?
3. Why do Pimwe's people and the people of the Malay Peninsula do so many things in the same way?
4. Give all the reasons you can think of for believing that a hot, wet forest land is a good place to live. What reasons are there for believing that your own region is a better place to live?
5. Name some of the things Pimwe had to learn that you do not have to learn. What are some of the things you have learned that Pimwe did not learn?
6. What do you think would surprise Pimwe most if he came to visit you? What would you show him first? Why?

Things to Do

1. Make a list of things in the Malay Peninsula that are like things near Pimwe's home.

This picture shows another of the hot wet lands where the only highways are the rivers, and the only means of travel is by boat. The houses along the river are built on stilts high above the ground so that they will be higher than the water level in times of flood.



Ostrander—Ewing Galloway

2. See how many peninsulas you can find on the map on page 50.
3. Pretend that you are visiting in one of the hot, wet forest lands. Write a letter to a friend and tell about what you see and do.
4. Tell each other about the books you have read from the list at the end of this unit. It will make your report more interesting if you show the books and point out some of the pictures in them.

BOOKS TO ENJOY

BUCK and FRASER. *On Jungle Trails*. World Book Company, Yonkers-on-Hudson, New York.

If you are a very good reader, you will like these true stories of animals of the Malay Peninsula.

ENRIGHT. *Kintu; A Congo Adventure*. Farrar & Rinehart, Inc., New York.

Kintu, son of the chief who lived in the big mud hut, learned to play the drums and do many other things. He was afraid of the jungle, so you will be surprised to learn that he went there alone.

JOHNSON. *Jungle Pets*. G. P. Putnam's Sons, New York.

The author made pets of the babies of many jungle animals in Africa.

LEE. *In the Land of Rubber*. Thomas N. Crowell Co., New York.

This story tells of Malayan children who live on a rubber plantation.

McCONNELL. *Living in Different Lands*. Rand McNally & Co., Chicago. "Hot, Wet Lands: The Amazon and Congo," pages 38-66.

MORSE. *The Coconut Monkey*. E. P. Dutton & Co., New York.

The story of a boy and his family, who live on the Malay Peninsula.

MUKERJI. *Fierce Face*. E. P. Dutton & Co., New York.

This is the story of a tiger cub and his adventures with the other animals in the jungle.

SINGER and BALDRIDGE. *Boomba Lives in Africa*. Holiday House, Inc., New York.

You will like the story and the pictures about Boomba, a ten-year-old boy who lived in Africa.

SMITH. *World Folks*. John C. Winston Co., Philadelphia. "A Hot, Wet Region—The Amazon Basin," pages 75-98; "Lands of the Black People of Africa," pages 159-178.

STEEN. *Red Jungle Boy*. Harcourt, Brace & Co., New York.

After many other adventures, this Indian boy became lost in the jungle and had to stay overnight in a tree.

SPERRY. *Bamboo; The Grass Tree*. The Macmillan Company, New York.

The Chinese boy in this story tells of the many uses of bamboo in his country.

SPERRY. *Coconut; The Wonder Tree*. The Macmillan Co., New York.

Toto, who lived on an island in the Pacific Ocean, used coconuts in many, many ways.

SPERRY. *One Day with Jambi in Sumatra*. John C. Winston Co., Philadelphia.

The story and pictures tell how an elephant was Jambi's alarm clock and a monkey was his playmate.

WEBB. *Jungle Picnic*. Frederick Warne & Co., New York.

Jennifer and her brother went to Africa to visit their uncle. They went into the jungle with a little black boy named *Sunday* and met many jungle animals.

WIESE. *Little Boy Lost in Brazil*. Dodd, Mead, & Co., New York.

You never would be able to guess how Carlito was found after he became lost in the great hot forest near his grandfather's home.

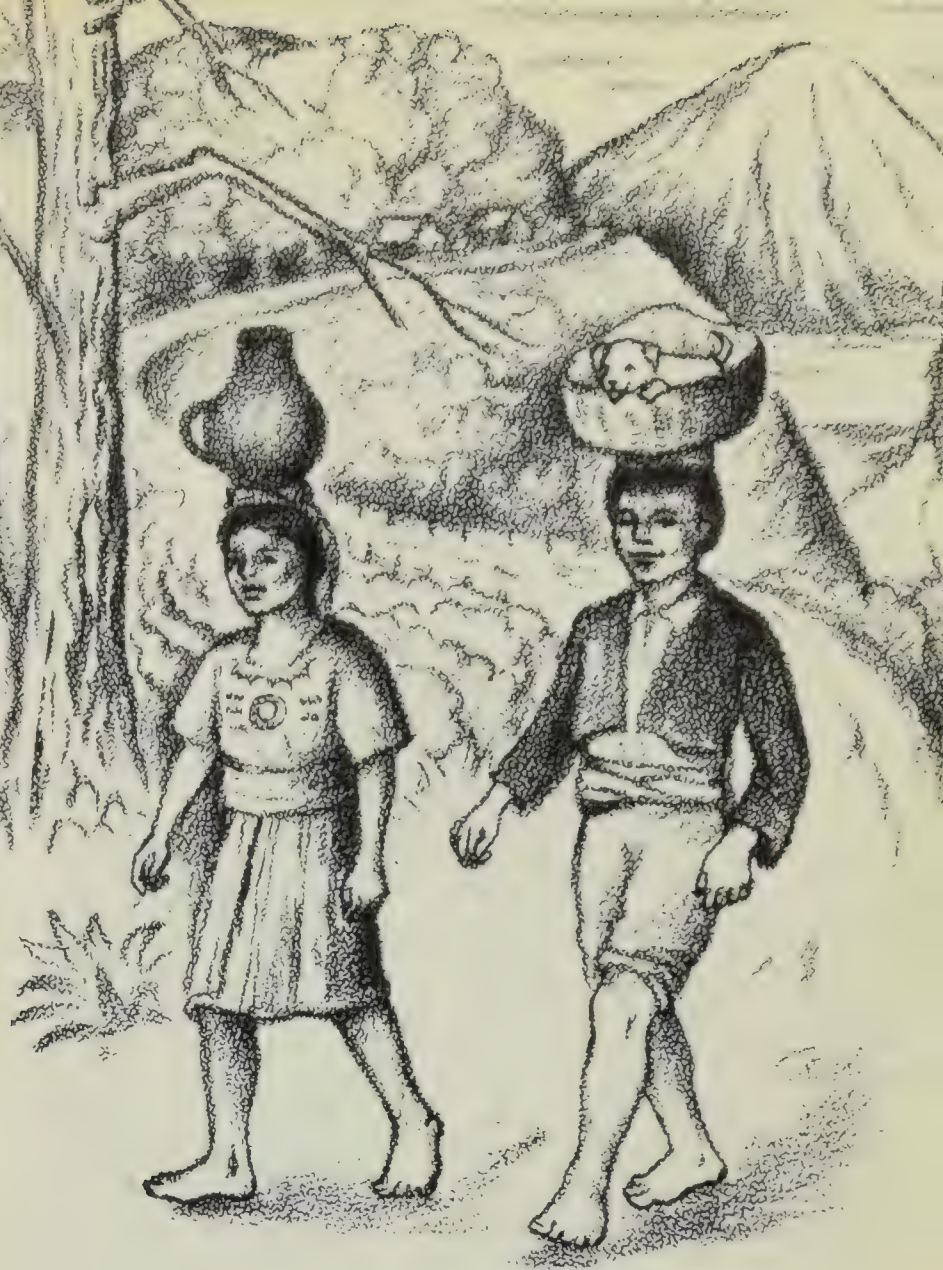
WILHOITE and HORTON. *Bobra of Bali*. Rand McNally & Co., Chicago.

Bobra lived on an island of the East Indies near the equator. He took his ducks to the pond, rode a water buffalo which pulled his father's plow in the rice field, and played with the monkeys and his pet rooster.

WILLIAMS. *Kimbi, Indian of the Jungle*. D. C. Heath & Co., Boston.

Kimbi, an Indian boy of South America, made a pet of a monkey which he saved from hunters. He finally became a good hunter himself.

2. Children of the Highlands



IT was going to be a fine day. The air felt cool and fresh, and sweet smells floated in on the breeze. The bright sunshine was just breaking through the morning haze when a fuzzy brown puppy came romping down the road. Stopping before a house set back a little way from the road, he cocked one ear and gave a short, squeaky bark.

In the open doorway of the house stood a little boy. "Hi!" called the boy, whose name was *José*.

The puppy barked again and cocked his other ear. With a rush, *José* caught the puppy in his arms. "Hi!" he shouted again. "How would you like to be my dog, my very own dog in place of little *Perrito*?" The puppy licked *José's* face.

José snuggled the puppy in his arms and ran toward the house.

He could hear his mother, *Maria*, calling him as he came inside. "José, there are not enough sticks for my fire.

"What have you there? A puppy? Here, let me see him! Why, that puppy belongs to *Tomás* in the next valley. See the white spot on this ear? Surely, it is *Tomás's* puppy. We shall take him home on our way to market. Put the puppy into this basket." *Maria* pushed a basket toward *José*.

"Now hurry and bring me some wood. Remember what your father told you. There will be a surprise for you Christmas morning if you never once forget to bring me sticks for my fire."

José sighed and put the puppy carefully into the basket. He wanted so much to keep the puppy. He wondered what the Christmas surprise would be. Christmas seemed so far away!

As José started out toward the woodpile, he whistled for his own dog, Perrito. But his face fell, and he closed his lips tightly. Little Perrito was dead. He would never come dashing up any more. How José missed his pet!

José's Breakfast

While José went to get the wood, Maria was busy preparing breakfast. The night before she had put dry corn to soak in water. This was done to soften the hard skin of the kernels. Now she placed the corn on a small, low table made of stone. Soon she was down on her knees, mashing the soaked corn with a stone rolling pin. Back and forth she rocked until all the kernels of corn were ground into a fine paste.

Maria rolled the paste into little balls. Then "slap, slap" went her hands, as she patted each ball into a round, thin cake, almost like a pancake, but thinner. Then she placed a wide, flat stone over an open fire on the dirt floor of the room. This stone was her stove.

By the time José had brought in his second armful of wood, his mother had the corncakes, or *tortillas*, baking on the hot flat stone. When they had browned on one side, Maria turned them over. In a few moments they were baked to a nice brown on both sides. As the morning was cool, Maria also made a hot gruel from the ground corn.

"Come, José! Breakfast is ready. Where are *Juan* and *Ria*? Tell them to come and eat. The food is getting cold!"

As José went to call his father, his sister, *Ria*, came through the door. She was carrying a big jar of water on her head. José's house did not have running

Before she can prepare a meal, the Indian woman must grind her corn into a fine paste. The things she uses to cook with are very crude, and not at all like those used by the women of our country. For centuries, Indian women have used stones and crude pots and pans when cooking. This woman is dressed much like any woman in our country, but most of the Indian women dress very differently.

Photos: William Langley—F.P.G.



Like all the people of her village, this girl gets her family's water supply from the fountain.

Kirkland—Pix

water or a well, so it was Ria's first chore each morning to go to the village fountain and fetch a jar of water.

Soon the whole family was seated on the floor, eating the hot gruel and tortillas. There was nothing else for breakfast, but José was satisfied. He was anxious to get through so that the family could start for the market.

José's Home

As soon as José had finished his breakfast, he went out into the yard. The ground was bare and swept very clean. José looked up and down the street. Along each side were white, pink, yellow, and blue houses just like his own.

The house in which José lived had only one room. Because its walls were made of sun-dried mud bricks, it was called an *adobe* house. The adobe brick walls of José's house were covered with plaster. The roof was made of cornstalks and was called a *thatched* roof. Pine needles were spread over the dirt floor. In the middle of the floor was a *hearth*. This was made of three stones. It had no chimney. Smoke escaped from open spaces under the eaves of the roof.

The village in which José lived was a tiny one, with only 400 *inhabitants*. Its name was *San Antonio Palopó*, but people usually called it San Antonio. At one end of the street was a square, or little park, called the *plaza*. Here was the village fountain where all the people of the village got their water. Across from the fountain was a church, and at the other end of the village was another church.



José stood looking at the nearest *mountain*, which he never tired of watching. High above the village he could see sheep grazing on the side of the mountain in the bright sunlight.

All round the little village were other mountains, for José lived in a mountainous country, or *highland*. The village nestled in a *valley* between the high slopes.

The sides of some of the mountains were covered with thick forests. On the sides of others were many little fields, where the people of the village grew corn and wheat and vegetables. In a few places the sides of the mountains were too steep for farming. Sometimes even the sheep found it hard to graze on these very steep hillsides.



Mrs. Branson De Cou—Sawyers

The trails between the Indian villages wind up and down over lovely, forest-covered hills.

The People of the Village

José and the other people who lived in these mountains were Indians. Their ancestors had lived here for thousands of years. Long before any white men came to this land, there were Indians living on the mountainsides and in the valleys.

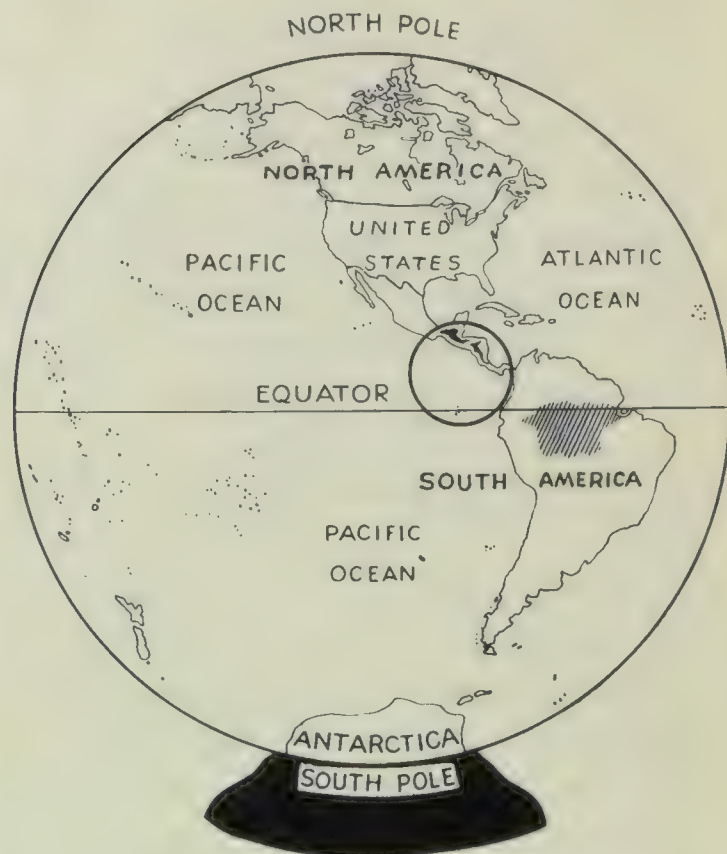
San Antonio Palopó is in Central America, the long, narrow strip of land joining the continents of North and South America. Central America is far south of the United States. It is much nearer the

On their way to market, these Indians travel by boat across Lake Atitlán. Some travelers consider this the most beautiful mountain lake in the world.

Courtesy United Fruit Company



equator than the United States is, but it is still many, many miles north of the Amazon rain forests where Pimwe lived.



The land inside the circle is Central America. It lies about halfway between the United States and the Amazon region, shown in shaded lines.

Not far from the village is a beautiful mountain lake whose waters are deep and cool and full of color. Sometimes the lake is blue, at other times green or purple. It is called *Lake Atitlán*.

The Morning Wash

Right after breakfast, Maria gathered up some dirty clothes and went to the edge of the lake to do the family washing. Maria and the other Indian women washed clothes every morning.

Maria rubbed and pounded and scrubbed the clothes on the stones at the water's edge. When the clothes were white and clean, she laid them out on other larger stones to dry. Then she and Ria stepped out into deeper water and washed their long black hair.



Hu Watson—Gendreau

Every day is washday in the Central American highlands. The women take their clothes to the edge of a stream or lake. There they scrub and rub the clothes, talking and laughing as they work.

Things to Talk About

1. If you have ever found a lost puppy, tell what you did with him.
2. What did José have for breakfast that you do not have? What do you have that he did not have? Whom would you rather eat breakfast with, José or Pimwe? Why?
3. Why did José always remember the sticks for the fire? What was Ria's first chore each morning? What chores do you do at home?
4. Have you ever seen an *adobe* brick house? Whose house would you rather live in, Pimwe's or José's? Why?
5. Is San Antonio Palopó larger or smaller than the town that you live in or near? In what ways is it like your town? In what ways is it different?
6. What is a valley? Have you ever seen a valley? Why did the people build their village in the valley instead of on the mountainside?

Things to Do

1. Find Central America on your globe or on your map. Move your finger along the route you would travel if you went there. How would you travel—by boat, by train, by automobile, or by airplane?
2. Draw a picture showing the mountains around José's home. Show the village in the valley between the mountains and draw some other things that may be seen on the mountainsides.
3. Turn to the list of books on page 90 and decide which ones you are going to read.



Indian families travel long distances by foot on their way to market. Sometimes they walk as much as twenty miles a day, carrying everything from chickens to pottery.

Herbert C. Lanks

MARKET DAY

By the time Maria and Ria had returned, José and his father had everything ready for market. Off they all went, swinging their arms. They believed that in this way they pumped air into their lungs and made walking easier.

Juan carried a big bundle of cloth on his back. This cloth had been woven by Maria, and they hoped to sell it at the market.

Maria had a basket on her head. Inside the basket were two fat chickens that were also to be sold.

José carried a basket that he had made from the reeds growing around the lake. He had worked on it for several days, and it was a fine basket. He hoped to get at least ten *centavos*, or cents, for it.

Inside the basket was the puppy. José had to hold the basket tightly to keep the puppy from escaping.

Soon they came to the home of Tomás. When they gave him his puppy, he was filled with joy at seeing his pet again.

After they left the puppy with Tomás, José was very sad. It was not going to be easy for him to do his work without a puppy of his very own to help him and to keep him company.

José walked ahead with his father. His little sister stayed behind with Maria.

The Indians of the highlands usually travel by foot. There are few trains or busses in the mountains, except between the larger cities and towns. Even when there are busses, few of the Indians can afford to use them. It is cheaper to walk.

Up and down went the hot, dusty road over the hills and mountains. Up and down went Juan and José. Up and down went Maria and Ria.

How much alike the father and his son looked! Both wore short cotton trousers, white cotton shirts, short dark-blue woolen jackets, and red sashes. José was barefoot, but his father wore sandals.

Maria and Ria also dressed alike. They wore full skirts of blue-and-white striped

cotton cloth, blouses of white cotton with gaily colored figures in them, flat red caps, and red sashes. Both of them were barefoot.

After walking for some time, Ria began to get tired. "May we not rest a little?" she called out to Juan.

"Indeed," answered Juan. "We shall all rest." And he set out at once to run. For several minutes the whole family trotted along the winding trail. This rested them, because in running they used a different set of muscles. Soon they would all reach the market in the Indian town of *Chichicastenango*.

As they turned a bend in the trail, José suddenly called out. "Hi! Look, there are the housetops of Chichi!"

Sure enough, there, nestled in a green valley, lay Chichicastenango, which the Indians called Chichi. The little boy and his sister quickened their steps. Their eyes glistened as they saw other Indians coming swiftly down the sides of the mountains toward the town.

The Indians made a colorful picture in their gay blouses, their sashes, and their red headdresses.

Everyone was carrying something on his back, or on his head, or was leading an animal loaded with goods. Many of the men carried huge crates on their backs. These were held in place with a kind of harness and with a strong strap across the forehead. Sometimes the crates looked bigger than the men. Inside

In Chichicastenango the market is held on the wide plaza in front of the church. White men built the beautiful church centuries ago. This is a busy spot on market days, which come every Thursday and Sunday the year round.

Courtesy United Fruit Company



the crates were all kinds of wares—great pottery jars, cloth, fruit, wheat, chickens—anything and everything that these people could produce.

The Indian women carried their bundles and baskets on their heads. They walked along, straight and strong, balancing their loads without even holding to them. If the load was a basket or anything hard, the woman placed a small cloth pad between the basket and her head. This helped her to balance her load. Many of the women also carried babies in shawls on their backs.

Even the children carried something, if only a basket or a little crate. If the family owned a *burro*, or small donkey, it too was loaded. The burro is a very useful animal to the people of mountainous countries.

The Market at Chichi

By the time the family reached the great stone-and-cement arched gateway to the city, the sun was climbing higher in the sky. José saw a little boy a short distance away. He called joyfully, "Ho, *Pedro*, here I am!"

Pedro was following four little pigs, which were kept together by ropes about their necks. He called out to José, "As soon as I have sold my pigs, we can do as we please. I shall meet you by the church in an hour." Then he hurried away, with the little pigs squealing and scrambling ahead of him.

José followed his mother and father to the great open plaza between the two churches of Chichi. This plaza was the *market place*.

Each village had its market place where all kinds of goods were sold. Every village held its market on certain days of

the week. Chichi had two market days, Thursday and Sunday.

Indians came flocking to the Chichi market from all over the neighboring countryside. They often walked fifteen or twenty miles to reach it.

In the market place the Indians sold the goods that they had made and brought to market. It might be pottery jars, cloth or rush mats, or jewelry. But whatever it was, they brought it to market to sell.

The Indians also bought the things they wanted at the market. They could buy food, cloth, hats, cooking jars, and almost everything else that they needed.

In the Church

As he entered the square, Juan led his little family into the great church at one side. He knelt on the steps before entering and said a prayer for the souls of his father and mother who had died many years before. As Juan prayed, he swung a bowl of burning pine needles back and forth. The smoke was intended to help his prayer rise to heaven.

As they entered the church and passed up the aisle toward the altar, Juan scattered rose petals. At the altar he prayed for himself and for each member of his family. Then he lit a candle and placed it at the foot of the altar. As they came out of the church, he again scattered rose petals and pine needles in the aisle.

Business in the Market

Now it was time to get to the market place. The little family walked down the steps of the church and into the plaza. They passed through aisle after aisle of little tables, each with a piece of canvas overhead to protect it from the sun's rays. On the tables were all the different goods

Upon reaching the town, the Indians always pray in the church before the market opens. This picture shows the men praying on the steps of the church at Chichicastenango. After that they go inside and pray again.



Hu Watson—Gendreau

brought to the market by the Indians.

Soon Juan found his place in the market. He had held this space from the time he first had owned his own home and fields and had married his wife. Juan paid six centavos each week for the use of this stall.

While he was setting up his little booth, Maria and her daughter trotted off to the cattle market. Here there were pigs, oxen, cows, turkeys and many groups of blinking chickens. Maria hoped to sell her pair of fine chickens so she could use the money to buy a new water jar.

It was also in the cattle market that Pedro sold his pigs. He made a quick sale and a good one. Pedro usually liked to bargain over the price, as did all the Indians. Sometimes he would argue for half an hour over one centavo. But this time he was eager to get through as soon as he could, for José had already sold his basket and was waiting for him.

José and Pedro liked to watch the men of Chichi in their smart black wool jackets and knee breeches. The Indians wore queer little flaps on the sides of

their breeches. These they called "ears." On their heads the men wore tasseled squares of red cloth, with eagles woven upon them in colored thread.

Not far from Juan's booth were tables loaded with delicious fruits and vegetables. On other tables were several different kinds of food wrapped in banana leaves. In screened boxes was freshly butchered meat. Near by in other boxes were masses of live *lizards*. With their scaly bodies and long, spiky tails, they looked a little like dragons. Indians who could afford them were very fond of cooked lizards.

In other booths the boys saw carved and painted gourds, pottery, water jars, and little clay statues. There were nets and bags made from vines and plants, crabs from the ocean, and carnations bright with color.

Many of the tables near Juan were filled with woven goods. These were all of cotton. Some of the pieces were striped. Others had little figures woven into the white cloth. All were gay with color. On some counters there were fluffy



Mrs. Branson De Cou—Savders

Twice a week the market at Chichi comes alive with crowds of people, buying and selling goods.



Ralph Hancock

Squealing pigs and cackling hens are among the many things bought and sold in the Chichi market.

piles of white or brownish-black wool, and piles of unspun cotton.

Finally, the boys came to the booth where Juan had his cloth spread out on a table. Maria was cooking the dinner.

The boys sniffed the delicious odors coming from the pot. "Meat!" cried José. "And in my special kind of spicy sauce; and corn and beans cooked with it!" Maria was cooking the dinner in a small pot over a charcoal fire.

How many of the articles in this corner of the market can you recognize and name?

Traveling Salesmen at Work

As the family ate, they watched a *merchant* trying to sell some brooms and raincoats. The raincoats were made from the leaves of a palm tree that grew in the lowlands along the coast.

The merchants worked very hard. In the mountains they bought pottery, woven cloth, handmade furniture, grain, and fruits. Then they brought these things to the markets near the coast and

The woman spent many hours weaving this blouse. Now she and her little girl wait for a buyer.

Photos: Hu Watson—Gendreau



sold them. In the lowlands they bought coconuts, lizards, parrots, monkeys, *cacao*, and salt to sell in the markets of the highlands. These traveling salesmen were the richest Indians of Central America.

The merchant usually carried his wares on his back in a large wooden crate. He carried his food and other necessary supplies with him too. He had beans, coffee, and tortillas. A few sticks of pine, a lamp, two cups, a coffeepot, and a bottle were hung on one side of the crate. On another side of the crate was a palm-leaf raincoat; and on the third side he carried the bedding he used along the road. It was only a blanket.

If the merchant was on the road when night fell, he set his crate on the ground, slipped out of the harness, built a tiny fire, cooked his food, and rolled up in his blanket. The next morning before daybreak he was on the road again, carrying his crate of goods to the next market.

The End of the Day

As the day drew near its close, Juan folded and packed away everything that had not been sold. Then with his family he went into the church to burn a candle and to give thanks for the good business.

It had been a good day. Juan and Maria were happy. They heard the melodious tunes from a *marimba* in the plaza. The Indians were dancing to its sweet music. Soon Juan and Maria joined them. The dancing was like a jigging up and down, and each Indian danced by himself. It was all great fun, and they did not want to leave. But after a time they awakened the children, who had been dozing on the church steps, and started for home.

Off they went, sometimes walking, sometimes trotting along the roads and steep trails. By the time they reached home, the moon was high in the sky. José was very happy. What fun it was to go to market!

Things to Talk About

1. Have you ever seen anyone weaving cloth or making baskets by hand? How would you like to work several days on a basket that you would sell for only a few centavos, or cents?
2. How did José's family rest on their way to market? When have you rested by doing something different? Tell about it.
3. Can you give some reasons why there are few busses, trains, or good roads in Central America?
4. Why do you suppose neighboring villages have their market day on different days of the week?
5. What do you think was the most interesting thing about the market at Chichicastenango?
6. Would you rather be a traveling salesman in Central America or a merchant in your own country? Why?

Things to Do

1. You might like to make a market like the one in Chichicastenango. Small pasteboard boxes can be used for tables; and fruits, vegetables, and other things to be sold may be cut from paper or cardboard or they may be modeled from clay.
2. Practice carrying a book or something else on your head the way the women of Central America carry their baskets and water jars.
3. Look for the new words in the glossary. Make a list of all the Spanish words used so far in this unit and practice pronouncing and spelling them.
4. Choose a group to give a dance like the dance the Indians gave at the fiesta. Someone in the group can furnish the music.

PLANTING THE CORN

Spring had come to the mountains of Central America. José knew all the signs. The days were getting longer. The sun was rising over the top of the mountain earlier each morning and was setting later each evening.

The leaves of the fruit trees were beginning to unfold. The *jacaranda* trees were bursting into bloom with thousands of violet flowers.

José knew that the days were growing warmer, too. Sometimes the warm sun made him sleepy. Then he would slip off to the side of the house, curl up, and go to sleep in the shade.

He was glad that he did not live in the *lowlands* near the sea. There it was much too hot for comfort. Here in the mountains, a mile or more above the sea, the breezes were always cool no matter how brightly the sun might shine. He remembered that Juan had once told him the air was even cooler in the higher mountains.

In some parts of the world the mountaintops are so high that the temperature

always remains below freezing. Even in summer when the sun is hottest these very high mountains wear their covering of snow. Many of the mountaintops of our own country are covered with snow all the year round.

José had never seen snow. His home in Central America is too near the equator, and the mountains of this region are not high enough to wear a crown of white.

As the days went by, Juan began to think about planting his crops. The dry season was nearly over. The dry season always lasted from October until the last of April. During these months there was almost no rain. The grass became dry and brown. Plants stopped growing. But Juan knew that the wet season was now about to begin.

Down in the lowlands along the coast, the air was growing hotter. At times the high winds there made the palm trees bend almost flat. Each day the warm air of the lowlands crept higher and higher up the mountainsides.



In the lowlands along the coast of Central America, there are jungles very much like those of the Amazon rain forest. Pimwe would soon feel at home in this jungle.

Erwing Galloway

Where the moisture-filled air from the lowlands meets the cool air of the highlands, a thick layer of clouds is formed. The sun is shining here on the mountaintop, but in the valleys below another rainy season has already begun.

Hu Watson—Gendreau



When the warm air of the lowlands met the cool air of the highlands, great clouds of white fog were formed. Gradually the air was becoming wetter and wetter. More fog and clouds appeared above the mountains. Finally, when the air could hold no more water, the rains began.

Juan knew that the first rains would come only at night when the air was coolest. But before long the rains would be falling during the day. Through June and July it would be raining in steady showers all day long. This would keep up through August. In September the rainfall would be at its heaviest. Then gradually the clouds would clear away. In a few weeks the sun would shine again the whole day through, and the rainy season would be over until another year.

This happened every year. The Indians knew it would always be so. They spoke of the rainy season and the dry season as we speak of winter and summer. The Indians knew too that their crops had to be planted before the rains came. Everything must be ready for the life-giving water when it fell.

Getting Ready for Planting

The weeks before the rains came were busy ones for Juan, Maria, and the children. They rose earlier than ever—long before the sun came over the mountaintop.

After breakfast, Juan and Maria knelt together in prayer before the little altar in one corner of their home. This was a table on which stood a small image, or picture, of the patron saint of the family. There were always some bright flowers, trinkets, and candles on the table. An altar is found in every Indian home no matter how small it may be.

After prayer, Juan fed the pigs, the chickens, and the turkeys. He took the cattle and hogs out to pasture. When the animals had all been taken care of, Juan set out for his *milpa*, or field. Juan's *milpa* was a long way from the village, several miles over mountain trails. On his shoulder he carried a bright new steel hoe. He had bought it at the market a few weeks before. It was a fine hoe, and Juan was anxious to try it.

His first task upon reaching his *milpa* was to burn off all the old cornstalks,



Most of the highland people live near each other in villages. But every family has its own milpa outside the village where corn and other food crops are grown. Every morning during the growing season the whole family walks out to its milpa and spends the day working.

Mrs. Branson De Cou—Sawders

dead vines, weeds, and leaves that covered the ground. All round him other Indians were burning the trash on their milpas. Before long the whole mountain was almost hidden in a gray haze. Smoke even rolled down into the narrow valley far below, so that it was hard to see the trail back to the village.

Then after all the trash had been burned, he took his sharp new hoe and began turning the ashes back into the ground. In this way the ground was *fertilized* and made rich for the new crop.

But the milpa was not yet ready for planting. The land and seed would have to be blessed first. And everyone in the

village would have to make peace with all his neighbors before sowing his seed.

The land was blessed at a special *mass* in the church. The day before the planting each Indian family selected its own spot on the floor of the church and set up lighted candles. The seed corn was placed on the floor with jars of incense and flower petals around it. When all was ready, the Indians knelt in a circle and prayed that the corn would grow tall and strong and yield many ears.

That evening after the ceremony in the church, Maria stayed at home to pray while Juan went to his milpa to burn incense in the fields.



Corn planting cannot begin until the seed has been blessed with prayers at a special ceremony in the village church. Each family spreads its seed corn out on the church floor before the ceremony, and prays that it will yield a fine harvest.

Courtesy United Fruit Company

All the families of a village plant their corn the same day. The seed is carried in pouches strapped around the men's waists. Digging sticks are used to make the holes for the grains of seed.



De Cou—Sawders

Planting the Corn

The next morning the whole village started out through a thick fog for the fields. Juan carried the seeds to be planted. Maria carried the tortillas for lunch. José carried the new hoe, while Ria carried four candles.

When they reached the milpa, Maria took the four candles and placed them around the field, one to the north, one to the south, one to the east, and one to the west. This was done so that all four winds might be satisfied and blow gently upon the young crop.

"I hope we have a fine crop," said Juan. "We need the corn for many things. We must have corn not only for our own food, but also for the animals during the dry winter months when there will be no pasture."

"Yes," said Maria, "and this year we must put a new thatch of cornstalks on our house, for the old roof will leak when the rains come. And we must have ears of corn ready for the next fiesta. They must be fine, perfect ears for that."

With his hoe, Juan dug holes in the ground. Then the oldest man in the village planted the first seeds. After that, all the Indians planted their grain.

Juan put both corn and beans in his field. He dropped the seeds in the same hole and pushed dirt over them with his foot. In one corner of his milpa, Juan planted onions, tomatoes, and peppers.

The Fiesta of the Planting Season

After the Indians had finished planting, they all returned to the village. At dusk the drums and flute began to play in the plaza for the *fiesta* of the planting season. Little fires were started, and the children danced and played in the circles of light.

Food was soon ready. The first tortillas were given to the oldest man in the village, the one who had sown the first seeds on Juan's milpa. Then everyone else ate to his heart's content. There were tortillas and *tamales* for everyone. Tamales are usually made of crushed corn mixed with chopped meat. This is then wrapped in cornhusks, dipped in oil, and boiled. But this was a special feast, and these were special tamales made of rice flour, flavored with herbs and spices. They were filled with turkey meat, wrapped in cornhusks, and boiled. The big pot in which they were boiled was covered with huge leaves. This gave a finer flavor to the tamales.



Ralph Hancock

For centuries the Indians have danced to the beat of drums like these, and to the music of the flute.

Besides tortillas and tamales there were several different kinds of fruit to eat. There were oranges, bananas, *mangoes*, and pineapples.

When the feast was over, the Indians danced to the sound of throbbing drums and piping flutes. Juan and Maria joined the throng of dancers.

They went round and round in circles until José thought they would grow dizzy and topple over. But they were used to

Even children join in the fun, playing and dancing round and round the village plaza.

Kirkland—Pix



it and kept going for hours. Finally when they could dance no longer, the Indians gathered up their children and went plodding off to their little homes. They were contented now that the sowing of the grain was done. They felt sure that there would be enough food for everyone. The rains would soon come, and there should be a good harvest.

Things to Talk About

1. How did José know that spring was coming? What signs of spring do you notice each year?
2. When it is very hot in the lowlands, what is the weather like a mile above the sea? What is it like farther up on the mountains? At the tops of very high mountains?
3. Why is there snow on some mountains in summer? Why had José never seen snow?
4. How long is the dry season in Central America? What are the wettest months?
5. What caused fog and clouds to appear above the mountains? Why does rain start to fall from the clouds?
6. How did Juan get his milpa ready for planting? Why was a special mass held in the church? Why were candles burnt in the milpa?
7. How many uses did the family have for their corn? What did they plant besides corn?
8. What do you think was the most interesting part of the fiesta?

Things to Do

1. Read the temperature on a thermometer. Show on the thermometer how high the temperature gets in summer where you live. Show how cold it gets in winter.
2. Plant some kernels of corn in a flower pot or box and watch them grow. See that the soil is broken up into small bits before you plant the seeds, and see that the growing plants get plenty of sunlight and water.

WORKING HARD IN THE RAINY SEASON

All during the planting season the fog had been thick in the mountains. Soon after the fiesta, the rains began. They would continue to fall almost every day through the long summer months until the last of September. The rainy season was here.

The rains and the hot sun made the corn and beans and other vegetables grow rapidly. The weeds also grew fast, but Juan kept most of them cut down with his hoe. All summer long he hoed his corn, beans, squashes, and tomatoes.

José's Work

José often helped his father in the milpa or took care of the sheep when he was not in school. Last year José had had his dog, Perrito, to help him care for the sheep. Now, without Perrito, José had to be more closely on guard. When one of the sheep wandered away, José would pick up a pebble, fit it into a sling he always carried across his shoulder, and flip the pebble at the sheep. Sometimes José had to do this often. Then he wished even more that he still had Perrito.

When José was not going to school or helping his father in the milpa or guarding the sheep, he was collecting firewood or gathering pine needles to scatter on the floor of the house. José never found time to play. There was just too much work to do.

How Ria Helped Her Mother

Ria had no time to play either. While José and his father were working in the field or tending the sheep, Ria and her mother were at work in the house.

Each day they cleaned up the little home, sweeping the hard dirt floor and spreading pine needles on it. Then the blankets on the sleeping benches around the wall had to be straightened out. When that was finished, Ria would take out her round *spinning stick* and begin to spin fluffy white cotton into thread. Afterward some of the thread would be dyed a bright red.

Maria's New Clothes

Maria in the meantime would reach up and take down the *loom*, which hung from the beams of the ceiling. The loom was very simple, just two heavy sticks fastened to a post in the wall of the house. Maria used another stick that was fastened to a strong cord which she tied around her waist.

After many hours of *weaving* Maria completed a square of fine, strong cloth.

Little Indian girls soon learn how to help their mothers with the housework. Mothers teach their daughters the same ways of preparing food which they learned long ago from their own mothers.

Herbert C. Lanks





Ralph Hancock

This girl has fastened a set of threads called the "warp" to a post. She holds them tight with her body at the other end. Then she weaves other threads called the "woof" through the "warp" in interesting designs like those in the clothes she is wearing.

In the center of the square was a hole just large enough for her head. After the cloth had been folded together and sewed part way up on each side, Maria had a beautiful new blouse.

With this fine, new blouse Maria wore a new skirt. She had got the cloth for it in the market. This cloth had been woven on *foot looms* by the Indian men. Maria had bought seven yards of this cloth. She did not sew it into a skirt. Instead she wrapped the material around her hips twisting it to hold it in place, and tying over it a bright red sash.

Maria's blouse and skirt looked just like the blouses and skirts of all the other Indian women of her village. They all had the same designs woven into the material. They were all the same color. Indian women from other villages had clothes of different colors and designs. Nearly all of them were beautiful.

What Ria and José Learned at Home

Ria was just as busy as her mother. Every little Indian girl was taught to spin and weave before she was fourteen. By that age the girls were as skilled as their mothers in weaving.

The girls learned other things besides weaving before they were married. They learned to carry water jars on their heads without spilling a drop or breaking a jar. They learned also to prepare the corn for tortillas.

José and Ria helped their parents in other ways. They enjoyed gathering gourds from the *morro* tree. These gourds made fine bowls and dippers.

This woman and her child are carrying water from the fountain. Indian boys and girls learn to carry things on their heads at an early age.

Mrs. Branson De Cou—Sawders



One way little highland girls help their mothers is by carrying their little brothers and sisters.



Herbert C. Lanks

The gourds were also useful in making clay pots. Maria took the brown clay that the children brought in from the mountainside and kneaded it with a little water. When it was just the right softness, she molded the clay around a gourd into the shape of a pot. Then she baked the soft clay in the open fire until it was hard.

After the pot had been cleaned and polished with stones and decorated with pretty colors, Maria poured a mixture of corn paste and water over it. When the pot had been baked once more in the open fire, it was watertight and ready for market.

José and Ria also helped to make rush mats and baskets. When the moon was full, José and his father went down to the shore of the lake and cut the tall reeds. The mats that they wove from the reeds were sometimes two and one-half feet wide and five feet long. Many of the Indians used these large mats to sleep on.

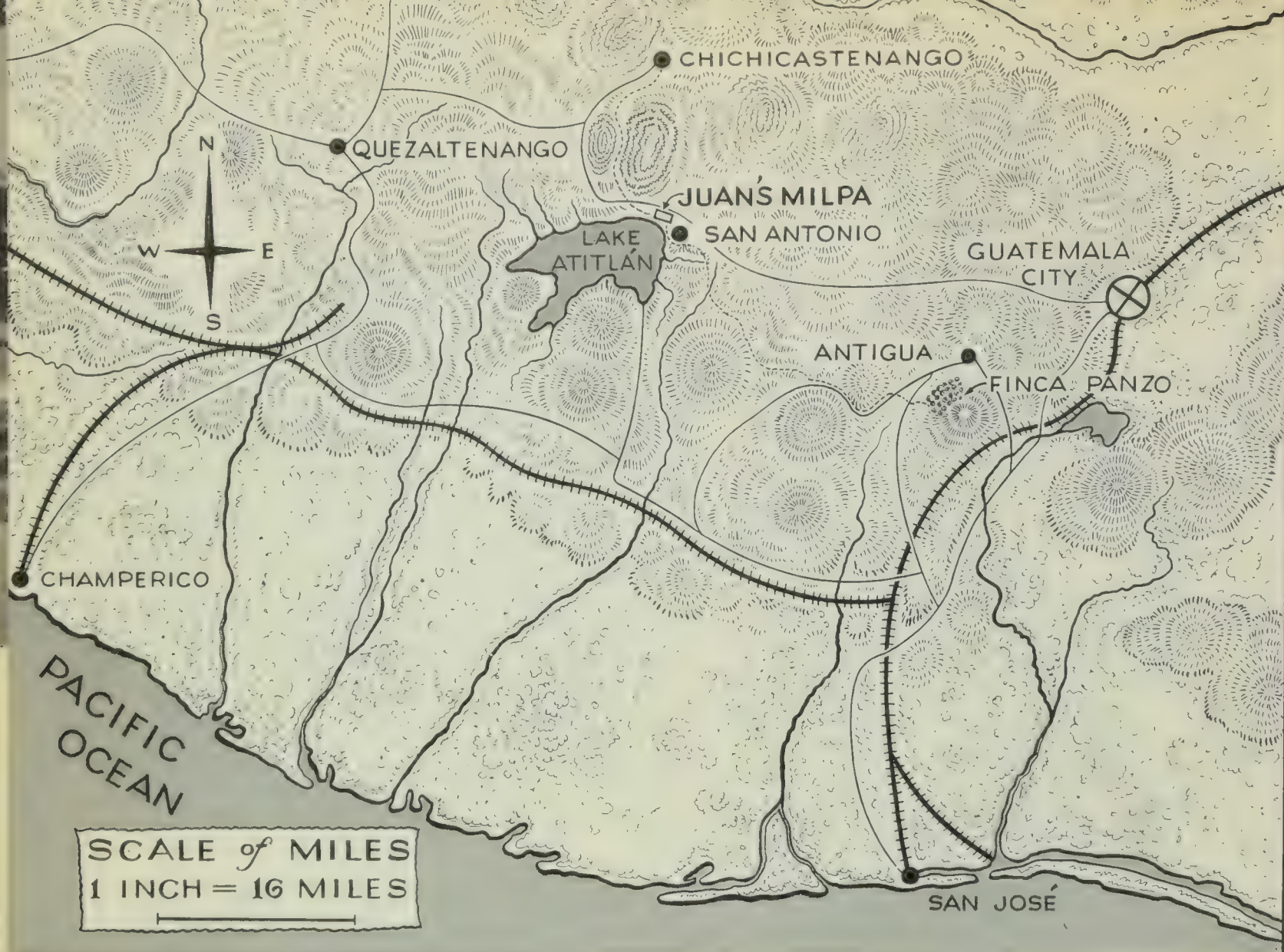
This man is weaving a basket from reeds. Do you see how he uses both hands and feet as he weaves the basket?



Like many highland Indians, this man is an expert potter. With his fingers, he will quickly mold the soft lumps of clay into a pot.



Photos: Ralph Hancock



This map of José's region shows the town where his family lived, the milpa where they raised their corn, and other things of interest. Using the scale in the lower left corner, can you tell how far it is from José's home to the town where he and his family attended the market? To Guatemala City?

Things to Talk About

1. Have you ever helped keep the weeds out of a garden or field? How did you do it? How did Juan and José do it?
2. Why did José and Ria have little time for play? Which of the kinds of work that they did have you done? Which would you like to do?
3. Where did Maria get the cloth for her clothes? Do you think as much cloth was needed for her skirt as for one of your mother's skirts?
4. How did the family use gourds? Do you know of any other ways of using them?
5. Do you think this family had to buy more at the stores than your family, or less? Why?

Things to Do

1. Look at the map on this page. If Juan and his family could travel in a straight line from their home in San Antonio Palopó to the market in Chichicastenango, in what direction would they go? How far would they travel? Why don't they go in a straight line? In what direction do the rivers flow? Into what body of water do they flow? Do you think they are very large rivers? Tell all the ways you can in which the rivers of Guatemala and the Amazon River are different.
2. Do one or more of these things.
 - a) Make a pot or a jar from clay.
 - b) Dress a doll to look like Maria in her new clothes.
 - c) Weave a basket or a mat.

JOSÉ HEARS ABOUT THE EARLY DAYS IN CENTRAL AMERICA

One evening the family was seated on the floor eating a fine stew of mutton, corn, beans, and peppers which Maria had prepared. Suddenly Juan spoke.

"Tomorrow we must go."

"Where, Father, where?" cried José and Ria together.

"Why, to pick coffee!" Juan answered. "Do we not pick coffee every year in September? Is it not now September? We must be ready to go tomorrow. I have heard that *Señor Panzo's* coffee is getting ripe. He needs coffee pickers. Are we not the very best coffee pickers in all San Antonio?"

Going to the Finca

The next morning the sun was just lighting the tops of the mountain peaks when the family started out. Juan led the way with a heavy bundle on his back. This contained some of the household goods that they would need at the *finca*, or coffee plantation.

Maria carried a basket on her head. In this basket were two live chickens and a few baby chicks. José drove the cattle and sheep and kept a watchful eye on the old sow that trailed behind. Ria was following four small pigs tied together with a rope.

Farther along the road the family came to a high ridge. They seemed to be on the top of the world. Rows of great hills stretched away in front of them as far as they could see. The hills near by, covered with cornfields or forests, were a deep rich green. Farther on, the green became gray-blue. Very far away, it was hard to tell the blue of the hills from the blue of the sky.

José thought the hills looked like huge

folds. "Just like the folds in my blanket after I have been lying on it," he said to himself. He wondered if some great giant might have slept here in days gone by. He thought about this awhile. Then he recalled what Father José, the village priest, had once said about these mountains.

How the Mountains Were Formed

According to Father José, these great folds on the earth's surface had been made long ago. But this wrinkling had not happened all at once; it took thousands of years for these mountain ridges to form.

José knew that some of the mountain peaks were called *volcanoes*. These were shaped like cones. Farther to the west, he could see a whole row of high, cone-shaped hills. From one or two cones came what appeared to be little wisps of curling smoke; but it was really steam.

Father José had said that deep down below the surface, the earth is very, very hot—hot enough to melt rocks. In places the melted rock, or *lava*, as it is called, broke through the surface of the earth and shot into the air.

Some of the lava poured out over the earth like sirup on pancakes. In other places it built up great mountain peaks, called volcanoes. All this happened many, many thousands of years ago. But even today the ground sometimes shakes, and "smoke" curls out of the *craters*, or mouths, of some of the volcanoes. "It must still be very hot down under the volcanoes," thought José.

"What do you look for?" asked Juan, when he saw José looking out across the mountains toward the volcanoes.



Within a few miles of José's home there are several volcanoes. From the craters of some of them rise thin clouds of steam and other gases. Their slopes are covered with hardened lava.

Ralph Hancock

"I was looking at the volcanoes and wondering if they still spout lava. Have you ever seen this happen, Father?"

"No," answered Juan, "but I can tell you a story about it."

What the Early Maya Indians Did

"Long, long ago only Indians lived in these valleys. They lived about as we do today. They were the *Maya* Indians. They built fine temples and homes for themselves. They grew cotton, spun the threads, and wove them into cloth. Some became richer than others and lived in better homes. The poorer ones lived in thatch-roofed huts in the country, as our people still do today.

"The Mayan people had cities with handsome buildings for their rulers and priests. Some day when you are older, we shall go to see the ruins of one of their cities.

"The Mayas were farmers as we are," continued Juan. "They planted their corn to catch the first rains, as we do. They burned off their old cornstalks just before the wet season, as we do. With a stick they bored holes in their fields, and into each hole they dropped a kernel of

corn. They grew other things, too. They had beans, squashes, sweet potatoes and white potatoes, pineapples, and peppers."

Scattered throughout many parts of Central America are ancient ruins of the Mayas. Some of these ruins are more than 1,000 years old.

Ewing Galloway



The Coming of the Spaniards

"Then one day white men came to the land of the Mayas. They were *Spaniards*. They had come from a country across the sea, called *Spain*. Their leader was named *Alvarado*.

"Alvarado might never have conquered the Mayas except for his horses. Today we know all about horses, but in those ancient days our people had never seen such animals. Alvarado had 135 horses, with soldiers riding on them. Our Mayan people thought horse and man were one strange, new animal. They were terrified. The Mayas fought bravely but were soon conquered.

"Alvarado built a fine capital and brought his bride, Beatrice, from Spain," continued Juan. "But one day, as he started off to battle, he was killed. Then shortly afterwards his capital was destroyed by a terrible earthquake. Following several days of storm and floods, there came a great rumbling noise. Then the earth began to shake, and the air became filled with dust.

"A great flood of water burst from the volcanic mountain and swept down over the palace. Beatrice and all her court ladies were caught by the rising waters and drowned. The people who were not killed moved their capital to another spot.

"What a beautiful city the new capital was! There was a great palace for the *governor general*. There were many fine buildings around the market square. But the blue cone of a volcano looked down upon the city with an evil eye.

"Then one day there were again deep rumblings within the earth. They grew louder and louder. For hundreds of miles around, the earth began to heave in one



Ralph Hancock

Seen from the ruins of an old church, this cloud-capped volcano looks like a harmless giant sleeping in the sun.

terrible quake after another. They were worse than anything we have ever seen or felt in our day, so Father José says. Next the great cone of the volcano spouted forth fire and streams of lava. This lava flowed down the sides of the volcano and over the helpless city."

Juan paused a moment and then went on. "Thousands of men, women, and children, horses, oxen, dogs, turkeys, chickens, and pigs went scrambling along the fire-lighted roads during that awful night. They were fleeing for their lives. Carrying what they could on their heads, the people fled over the mountains and down to the Valley of the Hermit. There they settled and built a new capital. This is *Guatemala City*, where you are going at Christmas time, and where you will have the surprise I have promised you. Now this is all I can tell you."

Things to Talk About

1. When does coffee picking start in Central America? Are any fruits, nuts, or other foods that grow near your home picked about that time?
2. Why did the family take household goods and animals with them to the finca?
3. How were the mountains, or folds in the earth's surface, formed? How long did it take?
4. What causes volcanoes? What is the melted rock from a volcano called?
5. What were the most interesting things you learned about the Mayas? What made it possible for Alvarado and his Spaniards to conquer them?

Things to Do

1. Try to find out if there are any volcanoes in the world now that spout steam and lava.
2. Find pictures of volcanoes in as many books as you can. Perhaps you can also find pictures of Maya ruins.
3. Take an apple or a peach to school and leave it in a dry place until there are wrinkles in the skin. Think of these wrinkles as mountains and point out mountains and valleys.
4. Choose four people to play this story and read their parts from the book. Another pupil may take the part of the book and read everything that was not said by one of the family. Try to read your parts just as you think the people talked.

THE COFFEE HARVEST

As the little family continued down the mountainside, they left the fields of corn and vegetables behind them. It was much warmer. José and his father no longer wore jackets. Instead, they wore brightly colored shirts, rolled-up cotton trousers, and big straw hats.

"I see *la casa grande*," cried José suddenly. Sure enough, there was the two-story frame house of Señor Panzo. All around it was the coffee finca.

It lay on the slope of an old volcano. Long ago lava had come streaming down from the throat of this monster. As the

This is the entrance to the finca where José and his family went every September to help pick the coffee crop. Do you see the slopes of the mountains where the coffee grows?

Herbert C. Lanks



lava cooled it became hard, and years later it crumbled into the richest kind of soil.

What the Coffee Finca Was Like

It was in this fertile volcanic soil that coffee trees grew best. The air and temperature on this lower slope of the mountain were just right. Here, too, there was plenty of rain. And best of all, the rain came at the time of the year when the growing coffee berries needed it most. Almost the whole side of the volcano was planted with coffee trees.

Near the house was a large concrete platform. This was the coffee-drying floor. Near by was a great square of ground which looked like a park. Around it were cattle pens, storage tanks, a schoolhouse, a carpenter shop, a store, and an office. There were also a police court, a jail, and a little church.

Roundabout were hundreds of homes for the families working on the finca. This was a fine plantation, and the homes were built of trim white-washed boards. All the roofs were painted red.

Juan and Maria came back to the same little house each year. They were proud of it. There was a good yard for their pigs and chickens.

"What a rich man Señor Panzo must be!" sighed José.

"Yes, he is rich, very rich," said Juan, "but he could not get along without us to work his plantation. He is good to us, and we have a good time while we are harvesting the coffee for him."

Work at the Finca

Soon the family set to work among the low coffee trees. The coffee orchard was a beautiful sight. Every tree was covered with dark-green leaves, beautiful



Not all the coffee berries ripen at the same time. There are often ripe berries and blossoms on the same tree.

white blossoms, and many berries, some green and some red. The coffee berry must be just the right shade of red before it is picked. The pickers soon learn this.

Juan and Maria met many old friends and neighbors. So, too, did the children. There was much talk, laughter, and hallooing. At midday the workers sat around little fires over which they warmed their coffee and cooked some vegetables.

When everyone had finished lunch, it was time for a little nap. This was called the *siesta*. Here on the busy plantation the siesta lasted only a few minutes. Then the picking began again.

The berries were dropped into big shallow baskets that hung by a rope from the picker's waist. When the baskets were filled, they were emptied into a great sack.



After being turned over many times on the concrete floor, the coffee is ready for packing.

Courtesy United Fruit Company

As the four o'clock bell sounded, the family stopped picking. Juan lifted his sack up on his back. Then he trotted off with it to the drying yard. There, too, all the other workers came with their sacks of berries.

Much still had to be done with the berries before the coffee would be ready for market. Inside each berry were two soft, green seeds, or "beans." A big machine removed the pulp from around each bean. Then the beans were soaked in tubs. After a thorough washing, they were spread out on concrete floors in the open air to dry. José liked to watch while the coffee beans were turned over in the bright sunshine. Men turned them with great wooden rakes.

When they were dry and hard and had changed to a pale yellow color, they were put into machines that broke the thin covering over each bean. By this time the beans were ready to be cleaned by great fans. Then they were packed in heavy canvas bags. These were stamped with the name of the finca.

José looked proudly at the sacks bearing the words, "Finca Panzo." He wondered where the sacks would go. Father José had told him that most of the coffee

went to a country far to the north called the United States. He wondered if he would ever see that land. He was proud that the people of the United States should send to his country to get coffee. He was proud, too, that his people picked the coffee which was loaded on ships and sent to people in a land so far away.

Things to Talk About

1. What do coffee trees need in order to grow well?
2. How many different things may be seen on a coffee tree at the time picking begins?
3. Which part of the day would you like best if you were a coffee picker? Why?
4. How are the coffee berries prepared for market?
5. Would you rather work on a coffee finca or on a milpa? Why?
6. Why was José proud to help with the coffee harvest?

Things to Do

1. Bring some coffee beans to school and examine them. Look at coffee bags and jars to see if you can learn where the coffee came from.
2. Pretend that you are Ria or José and write a letter telling about your trip to the finca or about something that you did while there.
3. Find a word in this story that means:
 - a) The mouth, or opening, at the top of a volcano.
 - b) People from Spain.
 - c) A mountain formed from hot rock.
 - d) A coffee plantation.
 - e) A short nap.
 - f) Melted rock from a volcano.

JOSÉ VISITS GUATEMALA CITY

It was November, and the coffee harvest had ended. Juan, Maria, and the children were once again on the road. This time they were bound for home. Juan's pockets jingled with the money that the family had earned from their work on the finca.

Up over the hills the family climbed. Higher and higher they went. As they climbed, the temperature gradually changed. Down on the finca the weather had been hot. Now it was getting cooler as they climbed higher up the mountains toward home.

The Beginning of the Dry Season

The long, wet season was over. The dry season had begun. There would be no more rain now until the latter part of April. "The beginning of the dry season," thought José, "is the best time of all the year. The hills are green. The fogs of the rainy season are gone. The sun shines without being too hot."

There was only one thing that José did not like about the coming of the dry season. He would have to start back to school. He thought arithmetic was hard.

On the very morning after they had returned to San Antonio, he heard his mother call, "José! José! Wake up, sleepy one! Today you must go back to school."

One evening not long after school began, Juan said, "I have been up to the milpa today. It is time to gather the corn and hold the harvest fiesta. I will talk with the men of the village."

The musician makes music by beating on the marimba with little hammers. The queer things that look like bags are gourds.

Courtesy Pan American Airways System

The Fiesta of the Harvest

So it happened. The very next week all the friends and relatives of each family marched off to the milpas to gather the seed corn. Most of the corn was left standing in the field. The weather would continue cool and dry for several months, and so the corn would not spoil in the field. It would be gathered as it was needed. But from the center of each milpa the family picked the corn that was to be used for seed the next year.

It was carried back to the village in a fine procession. Then there was music. Skyrockets were set off. Next there was a big feast. Everyone ate turkey until he could eat no more.

During the fiesta, the Indians always attended their church. For Juan and his family this was the church of Father José. Juan explained to his son that the God of Father José's church was their God. "But," he always added, "the Indians believe that God is everywhere, in the trees, the mountains, the air, the sun, the plants, the animals, and even in the rocks."



The fiesta of the harvest was soon over. December came. Every day José would coax his father. "When are we going to Guatemala City? Christmas will soon be here. Remember the promised surprise. Don't you think we should go today?"

Guatemala City

At last Juan decided that the right time had come to visit José's godfather in Guatemala City. The trip was long, but the father and son did not mind. Juan had so many stories to tell that the road seemed short. At last they came to Guatemala City, the *capital* of *Guatemala*, the country in which José and Juan lived. Juan was proud of his country's capital.

"This is the largest city in all Central America," he explained to José. "Over 150,000 people live here.

"Notice the streets. They are all paved with stone cut by hand. See the beautiful colors of the houses—green, pink, blue, and yellow. But the fronts of the houses are not friendly. Wait, I will show you the friendly part of these houses."

They walked on until at last they arrived at the godfather's house. Juan knocked boldly on the door. A servant opened the door, and they stepped into a tiny room. This led into a beautiful little open space called a *patio*. Here was a little fountain, baskets of hanging ferns and plants, fine chairs, tables and couches. In one corner of the patio a brightly colored bird sang in his cage. José was breathless. Never in his life had he seen anything like this. This was the friendly part of the houses in the city.

Would you think it strange if a market like this were held in the streets of our cities? These crowds are attending the market in the largest city in Central America. Have you ever seen a street paved like this? The pavement is made of cut stones.

James Sawders



Later in the day his godfather took them to a restaurant near by. José was a little frightened at first. He had never eaten in a restaurant before. He sniffed and sniffed, but had a hard time deciding what he wanted most. There were rice balls filled with vegetables. There were cakes of *plantain*. Plantain looks and tastes like a banana, but it is never eaten raw. There were slices of *breadfruit* which had been dried in the sun and baked. There were flowers of several different kinds dipped in thin batter and fried. With each and every one of these tempting dishes, the Indians all around them were eating tortillas and drinking coffee from tiny pottery jugs.

The Christmas Parade

That night José saw his first Christmas parade. It was noisy but very thrilling. The marching people beat on dried turtle shells as they walked. They knocked on the doors of houses along the way. Often the owners of the houses would give them drinks made from fruit mixed with spices, ground corn, and ginger root.

Little José enjoyed the visits to the other homes in the city most of all. In every Indian house was a tiny *landscape* showing mountain ranges, whole villages, rivers made of glass, and trees and flowers made of paper and bits of wood and pine needles. There were tiny figures of Indians dressed in beautiful costumes. The most important part, of course, was the manger with the Christ child, Joseph, Mary, and the Wise Men.

The streets were filled with happy people going to visit one house after another. This was also a week of prayer, and it ended with a feast.



William B. Larsen—F.P.G.

This is a patio, the "friendly part" of a home in Guatemala. All the better homes in Central America have lovely patios.

José and his father had been in Guatemala City a week when Juan said it was time they were returning home to Maria and Ria. José was sorry to leave all the good times, but he was also homesick and willing to go.

"But you have not yet had the surprise you have been waiting for!" exclaimed his godfather. "Here it is!" He clapped his hands, and the door was opened by his serving boy. In leaped the cutest puppy José had ever seen. The little dog rushed into José's arms.

"See, he knows he is to be your dog!" said the godfather.

"Is he really mine?" cried José. "So this is the surprise! He is just like my little Perrito, only he is even more beautiful. I shall call him *Perrichito*."

Soon Juan and José started off for home, with José carrying his new puppy. José was finally happy, for now he had a dog of his very own. Now he would have a companion and helper while he tended his father's sheep.

Things to Talk About

1. What season would you like best in Central America? Why? Which one did José like best?
2. What subject did José think was hardest in school? What subject is hardest for you?
3. What kind of corn do you think would be gathered for seed corn? Why?
4. What do you know about the fiesta of the harvest? When did José's people have another fiesta?
5. What is a godfather? Do you have a godfather? Who was José's godfather?
6. Why was Juan proud of the capital of Guatemala?
7. What did Juan think was the friendly part of the houses? What part would you like best?
8. What would you have ordered to eat in the restaurant that José visited in Guatemala City?
9. How was José's Christmas like yours? How was it different?

Things to Do

1. Pretend to be José and tell the story of the visit to Guatemala City.
2. Can you find the paragraph that tells
 - a) How the temperature changed as the family climbed the mountain.
 - b) The one thing that José did not like about the dry season.
 - c) How many people live in Guatemala City, the capital of Guatemala?
 - d) Where the family picked the corn that was to be used as seed.
 - e) What the Indians believed about God.
3. Make your own marimba. Get two long pieces of wood. Across them lay pieces of wood of different lengths. Nail the top pieces of wood to the bottom pieces with nails that are smaller than the holes in which they are driven so the wood will be loose. When you strike the different pieces of wood each will give a different sound. You can also play tunes on bottles filled with different amounts of water and hung from a rod.
4. Complete the list of Spanish words from this unit which appear in the glossary and practice pronouncing and spelling them.

On this map the highland regions of the world are shown in black. The highlands of Central America and of Europe are small compared with other highland regions. Which continent has the largest region of highlands? Which continent has the smallest highland region?





This high mountaintop in central Europe is covered with snow the year round. It looks nearer than it really is. From the village to the mountaintop it is more than six miles.



Courtesy Swiss Federal Railroads

These sheep are grazing at the edge of a mighty glacier. This glacier in Central Europe has been formed by snow sliding off the slopes of the neighboring mountain peaks.

OTHER HIGHLAND REGIONS OF THE WORLD

The highlands of Central America where José and his family lived are only 1,000 miles north of the equator. This region would be almost as wet and as hot as the Amazon rain forests if it were not so high. It is cooler and drier on the mountains than in the near-by lowlands.

There are highland regions on every continent of the world. In South America, mountains extend along the western coast from one end of the continent to the other. The northern part of this *mountain chain* is much like the highlands of Central America. The temperature and rainfall are about the same, and the people live in nearly the same way.

Another chain of mountains extends along the west coast of North America. The highlands of Central America make up the southern end of this chain. A few hundred miles farther north lie the highlands of *Mexico*. This region too is somewhat like the Central American highlands. But it is cooler and drier.

Most of the other highland regions of North and South America lie much far-

ther from the equator. For this reason they are too cold to be like the highlands of Central America. People live differently, too, in these colder regions.

A Highland Region of Europe

One of the most interesting highland regions of the world is in central Europe. The mountains there are much taller than those of Central America. Some of them are so tall that snow remains on their peaks all the year round. Even the lower valleys are buried under deep snow for several months out of every twelve. The higher valleys are always filled with deeply packed snow and ice. In some valleys the *glaciers*, as the packed snow and ice are called, are hundreds of feet deep.

The people who live in these highlands are quite different from the Indians of Central America. They are more like ourselves. In fact, many of our ancestors came to the United States from this part of Europe. But in some ways the life of these highland people is more like that of José and his family than it is like the life of people in our country.



Every inch of nearly level ground is used for farming. These women are working in their small potato patch high on the mountainside.

Courtesy Swiss Federal Railroads

Life of the People

In both regions most of the inhabitants live in villages in the valleys. Every morning during the *growing season* whole families walk out into the surrounding country to work in their small fields.

In central Europe houses are built of wood from the trees growing on the mountain slopes. The roofs have to be steep so that the heavy snows will slide off. The houses are heated in winter to make them warm enough to live in.

The growing season lasts only a few months. For that reason corn and certain other *crops* do not have time to ripen

before frosts destroy them. The crops usually grown in these highland valleys are potatoes, rye, oats, hay, grapes, nuts, and garden vegetables. The people farm every inch of land that they can, but still they cannot raise enough food to go round. They have to *import* much of what they need from other regions.

They do produce enough of some foods, however. These are *dairy products*, such as milk, butter, and cheese. The mountain slopes of this region make fine summer pastures for cattle and goats. They also supply hay and fodder for the animals to eat in winter.

Summer on the Mountains

Early in the spring, as soon as the highland pastures turn green with tender young grass, herds of cattle begin moving up the mountains. Two men go along with each herd to look after it and to do the milking.

The morning when a herd starts out is always a gay time in the life of a village. The herdsmen wear bright-colored costumes, and even the cows carry wreaths of flowers about their horns and necks. A procession is formed with the herdsmen leading and the cattle following. At every house more cows and people join the procession. The villagers follow for part of the way up the mountains. But they soon turn back, leaving the herdsmen to plod on alone.

Much hay is raised on the upper mountain slopes. After cutting, it is tied into bales and dragged down to the barns in the villages.

Courtesy Swiss Federal Railroads





Courtesy Swiss Federal Railroads

There is much excitement in the village as the herd starts out for the summer pastures high in the mountains. The cows wear the biggest bells their owners can buy, and the herdsmen dress up in their fanciest costumes. The boy who herds the goats leads the procession. He will not remain in the mountains all summer, but will return to his home at the close of day.

For the first few weeks the herds graze on the middle slopes of the mountains. But as the days grow warmer and the snow melts from the slopes higher up, the herds move on to fresh pastures. Throughout the first half of the summer they follow the melting snow higher and higher up the mountains. Then as summer draws toward its close, and the *snow line* once more begins to creep down the mountain, the herds move slowly back to the lower slopes. At last the time comes to leave the mountains and return

to the village. During the rest of the year the cattle stay in the valley and eat hay and fodder.

The herdsmen lead very lonely lives during the months they are on the mountains. But they have plenty of work to keep them busy. Twice every day they must milk their cows. From the milk they make cheese and butter. They have to cook all their own meals, as the pastures are far away from their homes. They live in small stone huts or log cabins, which are left empty in winter.



Courtesy Swiss Federal Railroads

High up on the slopes of the mountains, the herd grazes peacefully in its summer pasture. Near by are the huts of the herdsmen. Do you know now what the white masses of snow and ice are called?

When the time comes for them to return home, other men and boys come up from the village and help carry the heavy tubs of cheese and butter down to the valley. Like the highland people of Central America, they are used to carrying heavy loads on their backs. Sometimes

they carry their loads in long baskets, strapped to their backs. This leaves their hands free to help in climbing up and down the steep trails.

The return to the village is another time of fun and gaiety. Everyone turns out to welcome the returning herds and herdsmen and to receive a share of the cheese and butter.

Goats, too, are sent up the mountains in summer. They can feed on slopes that are too steep for cattle, and they eat weeds and other kinds of plants that cows will not touch. Usually one or two boys go along with each herd to look after the goats and keep them from getting into dangerous places. They return with their herds each night.

The goat boy returns to the village with his herd at the end of a day in the mountains.

Courtesy Swiss Federal Railroads



Many people travel to the highlands to enjoy the fine winter sports and the healthful climate. They like to skate on the ice-covered lakes and ski on the snow-clad mountain slopes. They also like to look at the beautiful scenery.

Courtesy Swiss Federal Railroads



Work in Winter

During the long winters there is not much work for the villagers to do on their farms. So most of them earn money in other ways. Some of them do wood carving. Others do embroidery and make jewelry. Many of them find work in hotels and in serving tourists. For winter brings thousands of tourists to the highlands. They come to enjoy the *scenery* and to take part in the winter sports.

Many villagers also work on the railroads and in factories. Some factories make cheese, condensed milk, and milk chocolate. Others make fine watches, clocks, and cloth. Most of these factory-made products are *exported* to other regions in exchange for the food and other things that must be imported.

Winter or summer, these highland people live as they do, and work and play as they do, because of the kind of region they live in. That is true of highland people everywhere—in Central America, in central Europe, and in other parts of the world. They have all learned the best ways of living in these regions.

Things to Talk About

1. Why is it cooler where José lived than where Pimwe lived?
2. Why does snow stay on the mountains in central Europe all the year round when it does not in Central America?
3. Why is it that some crops which are grown in Central America are not grown in the highlands of Europe? Why do the people of the European highlands have to import some foods?
4. How is life in summer different from life in winter in the highlands of central Europe?
5. What things in the story tell you that the highland people of central Europe have learned the best ways of living in the regions where they make their homes? Why is it also true of the people of Central America?

Things to Do

1. Make a list of the ways in which life is the same in the highlands of Europe as it is in the highlands of Central America. Make another list of the ways in which life in these two places is different.
2. Make a "movie" showing life in a highland country. Decide what scenes you wish to show, and draw them on a long piece of paper.
3. Look at the map that shows the highland

regions of the world and find answers to these questions:

- a) Which continents have highlands?
- b) Which continent has the most highlands?
- c) On which side of the equator do most of the highlands of the world lie?

d) Find the highlands of Guatemala where José lived.

e) Start at the southern tip of South America and move your finger as far as you can without taking it off a highland region. Name the farthest place reached.

BOOKS TO ENJOY

BAILEY. *Guatemala in Story and Picture*. Albert Whitman & Co., Chicago.

This is an easy book which tells about Guatemala and its people in an interesting way.

BARROWS and PARKER. *Journeys in Distant Lands*. Silver Burdett & Co., Boston.

"A Land of Mountains" (Switzerland), pages 83-98.

BRANDEIS. *The Little Swiss Wood Carver*. Grosset & Dunlap, New York.

This easy book tells about many adventures of Seppi, who became a very fine wood carver.

BUFF and BUFF. *Kobi: A Boy of Switzerland*. Viking Press, New York.

Kobi earned a herder's suit and went into the mountains with his uncle for a summer.

CANNON. *Children of the Fiery Mountain*. E. P. Dutton & Co., New York.

Pete and Tommy flew from Kansas to Guatemala, where they spent an exciting winter on a coffee *finca*.

COATSWORTH. *Boy with the Parrot; A Story of Guatemala*. The Macmillan Co., New York.

A little boy named Sebastian traveled as a peddler and carried a heavy pack. He and his parrot met many interesting people and did many interesting things.

ERSKINE. *Little Pepito of Central America*. Grosset & Dunlap, New York.

Little Pepito lived in one of the Central American countries and visited all the others.

GOETZ. *Letters from Guatemala*. D. C. Heath & Co., Boston.

Dick went to Guatemala to live and wrote letters back to his friends telling about his house, the market, the school, Christmas, and his visits to coffee and banana plantations.

GOETZ. *Panchita: A Little Girl of Guatemala*. Harcourt, Brace & Co., New York.

Panchita wanted a beautiful doll which she

saw in a store window, so she made a pottery tea set to pay for it.

JACKSON. *Tito, the Pig of Guatemala*. Dodd, Mead & Co., New York.

The pig which this Indian family took with them from their home in the mountains to the fiesta in town caused them all kinds of trouble.

LEE. *Our Little Guatemalan Cousin*. L. C. Page & Co., Boston.

Pedro went up the Crocodile River in his canoe and visited in Guatemala City.

LEE. *Volcanoes in the Sun; A Boy and Girl of Guatemala*. Thomas N. Crowell Co., New York.

This boy and girl were adopted by a kind Indian who lived near a volcano.

MCCONNELL. *Living in Different Lands*. Rand McNally & Co., Chicago.

"Mountain Lands: Switzerland," pages 104-120.

POLLOCK. *Sandalio Goes to Town*. Chas. Scribner's Sons, New York.

Sandalio lived near the mountains in South America. He took the family cow and his pet calf to town to sell them, but he finally worked out a plan to save them.

SMITH. *World Folks*. John C. Winston & Co., Philadelphia.

"Life in the Mountains—the Swiss," pages 179-205.

STULL and HATCH. *Journeys Through Many Lands*. Allyn & Bacon, New York.

"The Playground of Europe," pages 92-99.

VON HAGEN. *Pablo of Flower Mountain*. Thos. Nelson & Sons, New York.

Pablo lived in the mountains of Central America. He wanted a horse more than anything else in the world. After many exciting adventures he got one in a surprising way.



3. *Joe Manygoats and His Sheep*

THE sun was hot. Little waves of heat danced across the dry, sandy earth. Joe Manygoats looked around to see that none of his sheep or goats had strayed too far away in search of grass. Then he sat down.

Joe was tired. All morning he and the herd and the brown dog had wandered over the *desert* looking for grass. The sheep were tired too.

Even the dog was glad of a chance to rest. He slipped into the shade of the *sagebrush* and lay there with his tongue out, panting noisily.

Joe Manygoats was a *Navaho* Indian boy. He was nine years old, and he lived in a dry desert region in the southwestern part of the United States.

Joe's Summer Work

All summer long Joe had taken care of his family's goats and sheep. Early each morning right after breakfast, he had gone to the sheep pen, or *corral*, behind his house. When he opened the gate, the sheep and the goats ran out, jumping and bleating and baaing.

Every morning Joe made sure that all the sheep and lambs were there. Even though there were 400 sheep in the herd, he knew each of them by sight. Then he whistled to his dog, and they all started off to look for grass. They often had to walk a long way, because there was not much grass in this desert country.

This morning Joe had started from home very early. Now the sun high over-

head told him that it was noon—time to rest and eat. He caught one of the goats and milked her. Then he sat down in the shade of a little *juniper* tree and drank the goat's milk. With it he ate the corn bread which his mother had given him that morning.

Most of the sheep had found a little shade under some bushes of *greasewood* and sagebrush and were resting too. A few of them had strayed down into a *gully* in search of grass.

An Exciting Adventure

Joe stretched out on the ground and put his broad-brimmed hat over his eyes to keep out the sun. Only the brown dog was really wide awake. When the dog was out with the sheep, he never closed his eyes.

This time it was his nose that told him something was wrong. He smelled a *coyote*. A coyote looks a little like a police dog, but every Navaho dog knows that a coyote is an enemy of sheep. Every Navaho boy, like Joe, knows that too. But Joe was asleep!

The brown dog's nose led him in the direction of the gully. There he quickly saw a coyote creeping up behind one of the lambs, ready to leap upon and kill it.

The dog saw that the coyote was big enough to kill him, too, if he had a chance. He needed help quickly. So he barked as loudly as he could.

Joe was awake in an instant. He could tell by the way the dog was barking and jumping about that something was wrong. Then he saw the coyote. The

This is a picture of Navaho land, the region of little rain where Joe lived and tended his sheep. Notice the smooth, flat plateau land, the deep gullies, and the low mountains in the distance. Do you see any scenery like this in your part of the country?

Courtesy U.S. Indian Service







Ewing Galloway

In the winter, this Navaho family live in a home, or hogan, like the one in the picture, made of logs and earth. Some Navahos build another kind of winter hogan, made of logs filled in with mud plaster, like the one on page 3. In the summer these Indians often live in a hogan made of tree branches and leaves.

coyote was very bold, and the barking did not frighten him. He was creeping along closer and closer to the lamb.

Joe saw that there was no time to waste. He ran toward the gully, yelling as loudly as he could. That was enough to frighten the coyote. He turned and ran off to wait for a day when the brown dog might stay at home.

Joe put his arms around the dog and gave him a pat. Then he took a piece of corn bread out of his pocket.

"This is your reward for saving the lamb," said Joe. The brown dog cocked his head, barked, and swallowed the corn bread in one gulp. Then he cocked his head again as if to say, "Isn't there any more?"

Joe shook his head. "No more until supper. Now let us find more grass. Go get the sheep!" He whistled sharply.

Along the Trail

The brown dog bounded away to round up the sheep and start them off along the sandy trail. Joe walked at one side of the sheep to keep out of the cloud of dust that they raised. He did not mind getting his faded blue shirt and blue *denim* work pants dusty, but he did not like to breathe the dust. It made his throat feel dry and his eyes sting.

Joe wore no shoes, but his feet were tough, and the hot sand and the rocks did not bother him much. He shaded his eyes and looked across the desert. He saw a high flat land cut by many small *canyons* and gullies. These canyons and gullies cut the land like great ditches.

The high flat land where Joe took care of his sheep is called a desert because it is very dry. It is also called a *plateau*. Plateau means "high, flat land."

Across the plateau to the north Joe could see mountains. They looked a hazy blue in the distance. To the south the plateau stretched for miles and miles.

Joe often wondered what the country was like far to the south. As far as he had gone it was just like the land around

his home—dry and sandy, with a few *pine-nut* and juniper trees. And almost the only shrubs he had seen were greasewood bushes and sagebrush. These bushes were able to live in the desert because they had very long roots that went deep into the ground for water.

A NAVAHO HOME

It was late in the afternoon by the time Joe and the sheep got near home. He was glad when the three black dogs came running and barking to greet them.

After the sheep were safely in the corral, Joe started for the *hogan*, as the Navahos call their houses. The hogan was nearly round. Its walls were made of logs, completely covered with earth. The roof of the hogan was also made of logs covered with earth.

Joe pushed aside the blanket which hung across the doorway and stepped inside. It took his eyes several minutes to get used to the darkness of the windowless room. The only light inside the hogan came from the door, from the open fire on the dirt floor, and from a little hole in the roof where the smoke went curling upward.

All around inside the hogan were the belongings of the Manygoats'. There were soft sheepskins that made good beds. There were blankets too, some to sleep under and some to use as overcoats in cold weather. Near one wall was a large wooden box. It contained the family's best clothes and silver jewelry. Behind the box was a bag of sheep's wool. Joe's mother, Jessie, would spin this wool into yarn when she had some spare time.

On the other side of the hogan were some corn for food and a few pots and

pans used for cooking. And in many of the nooks and spaces between the logs little packages were stored. Some of these contained thread and bits of wool. Some contained plants which Joe's father, Jim, had picked and dried to use as medicine. There were a few bird feathers stuck in the cracks of the logs.

Joe sniffed as he came into the one room of the hogan. "M-in-m!" The mutton stew on the fire smelled good.

Joe told his mother about the narrow escape from the coyote. She was glad the brown dog had saved the lamb.

Old Man Salt

As Joe's eyes became used to the dark, he could see his grandfather asleep on a sheepskin in the rear of the hogan. People called him Old Man Salt. His face was wrinkled with age, but his eyes were still bright. Joe had always enjoyed listening to the tales of "the long, long ago" that Old Man Salt could tell.

Old Man Salt knew a lot about sheep and goats, and about horses too. He had often explained to Joe just how to take care of the sheep so that there would be plenty of mutton and wool. Just the spring before, he had given Joe six sheep for his very own. At that time Old Man Salt said to Joe: "If you take good care of these sheep, some day you will have a big flock of your own."

The Water Supply

Joe and Jessie sat around the fire without talking much, waiting for the stew to finish cooking. Suddenly the dogs started to bark. Joe pulled up a corner of the door blanket and saw his father's wagon coming.

His father, his sister Isabelle, and his brother Tom had gone to the spring to get water. They had brought back three full barrels.

Once each week Jim hitched up the team and went for water. He had to go to a spring eight miles away, for there was no water near the house. The trip took nearly a whole day. With water so scarce, there was none to waste. Most of it was needed for drinking and cooking, but a little was left over for washing.

Joe went out to help unload. By the time the water barrels were stored away, the stew was ready, and the whole family gathered around the fire to eat supper.

Old Man Salt had slept right through all the barking and noise. Jessie called to him to hurry because all the food might soon be gone. At the end of the meal, the grandfather said a short prayer, a few words of thanks for the food they had eaten.

Joe's Visit

The sun was still shining after supper, and Joe strolled over to see his older sister, Lily, and her family. He thought he would tell them about the coyote and the brown dog.

Lily's hogan was like her mother's, except that it was a little smaller. Only four people lived in it. They were Lily, her husband, George Grayeyes, and their two little boys, Frankie and John.

Joe liked to watch Lily's husband making silver jewelry. George made bracelets and rings and buttons. Lily had many silver buttons sewed on her blouses. Sometimes George would trade his jewelry to other Navahos for something else. He often got two or three sheep in exchange for one bracelet. He also traded his jewelry at the trading post.

When Joe arrived, George was busy making *moccasins*. The upper parts of the moccasins were made of *deerskin*. George had killed a deer and had made its skin into leather and then dyed it a deep brown color. He was just sewing on the soles. Joe watched the neat little stitches and wondered if he would ever be able to make moccasins as well as George could.



The Navahos make fine jewelry, such as rings, bracelets, and big buttons to wear on belts. Some of this jewelry they wear; some of it they sell. As you read more about Joe and his friends, you will see many of the people in the pictures wearing silver jewelry.

Erving Galloway

This baby cannot fall; he is firmly fastened to his cradleboard. The shade over his head protects him from the sun as he watches the lamb. His mother also carries him on her back in this board.

H. Armstrong Roberts

When Lily and George heard the story about the coyote, they were glad the brown dog had not been asleep.

Frankie tried hard to keep awake to hear Joe's story but he could not keep from nodding. Baby John went sound asleep on his *cradleboard*, which leaned against the wall of the hogan. His mother had placed him on this board. Then she wrapped his blanket around him and fastened him so he could not fall off. It was a good way to keep a baby safe.



Things to Talk About

1. If you could help one of them with his work, would you rather help Pimwe, José, Ria, or Joe? Why?
2. How do you know that Joe's dog was well trained? Do you know of any other dogs that work? What do they do?
3. Why is Joe's land called a desert? Tell all the differences you can between the region near Joe's home and the region near Pimwe's home.
4. Some deserts are not plateaus. Why is this desert called a plateau?
5. What did Joe have for lunch that Pimwe has never tasted?
6. Name some of the plants that grow in Joe's desert. Why can they grow there when so many others cannot?
7. In what ways is Joe's hogan like José's home? How is it like Pimwe's home? In what ways are they all different?
8. Why do the Manygoats' have to haul water? Where do you get water?
9. How do you suppose Old Man Salt had

learned all the things that he knew? What has your grandfather taught you?

Things to Do

1. Show on your sandtable or sandbox what Joe saw as he shaded his eyes and looked across the desert. Build a hogan like Joe's home on the plateau.
2. Try to find pictures of the plants and animals that are told about in this part of the story.
3. Start a collection of things that were made by Indians. Try to learn something about each article. Perhaps you can learn the names of the tribes that made the articles and the ways in which they were used.
4. Make a list of the things that people get from sheep.
5. Draw a picture or write a riddle about one of the persons in this story. Ask the others to guess who it is.
6. Be sure you know what the new words mean. Look in the glossary if you need help. List the words in the order in which they should come in the glossary; then look to see if they are given in that order.

THE CORN HARVEST

George Grayeyes had gone over to one of the cornfields that morning to see if the corn was ripe. "It will be ready to pick in about two weeks," he said.

Jim and George each had a small cornfield on the plateau not far from their hogans. Jim also had a field down in the canyon which ran along the east side of the plateau. Old Man Salt had been the first to use this canyon field. Now that he was too old to work any more, Jim took care of it. George helped him, and so did Joe and Tom.

Next year George was going to plant a field of his own in the canyon. The men of the family would all work together to help him start the field. It was a good thing to have a field in the canyon because there was more moisture in the ground down there. Some years there was so little rain on the plateau that corn

would not grow there. But the ground in the canyon was always moist enough to grow corn.

Trail to the Canyon

One day about a week later there was much hurrying about at the Manygoats camp. The family was getting ready to go down into the canyon for the corn harvest. They did not take much—just some blankets, some food, and a few pots and pans. These were loaded upon the wagon, and then the whole family climbed in. The dogs went too. Some of them rode, but the others ran along beside the wagon.

Jim drove the wagon along the dusty trail to the edge of the canyon. There they loaded all their goods on the backs of the two horses and started down the trail. It was a steep trail, which wound back and forth across and around the red

When traveling long distances, most Navahos go by horse and wagon. The cloth stretched over the top of the wagon shades them from the sun as they travel over the hot, dry plateau.

H. Armstrong Roberts



Everyone has a share of the work to do in a Navaho family. This little girl carries wood into the hogan for her mother's fire.

Courtesy U.S. Indian Service

rocks of the canyon wall. One could look down at the fields stretched out on the wide floor of the canyon. These fields looked very green, much greener than those on the plateau.

Winding along among the fields was the dry bed of a river. There was seldom any water in the *river bed*. After a very heavy rainstorm, or a *cloudburst*, this river flowed for a few hours. For a short time the *flood* of water ran very fast, fast enough to carry along small shrubs and branches of trees. The Navahos were very careful never to get caught in the river bed during a big rainstorm.

Joe always looked forward to the corn harvest. There was much work to do, but there was also plenty to eat—plenty of fresh, new corn. And there were always many people to see and to talk with. Two sisters of his mother had fields in this same part of the canyon. These two aunts and their families lived on the plateau too, but Joe saw them only at special times, such as corn harvesting.

The walk down the trail from the plateau to the bottom of the canyon took almost an hour. Long before the Many-goats' reached the bottom, they could see several families already at work.

Joe was very quick and nimble making his way down the trail. He reached the bottom of the canyon before the rest of the family, so he started to walk along the dry river bed. It had been several months since Joe had been in the canyon, and he wanted to go exploring. The little brown dog followed at Joe's heels.



The Flood

Suddenly the brown dog ran a few steps ahead, stopped, and pricked up his ears. Joe stopped also, wondering what the dog heard. He listened. At first the sound was like wagon wheels rumbling along a road. But it gradually grew louder until it sounded like faraway thunder. Joe knew then what it was. Even though the sun was shining here, some place many miles up the canyon there had been a cloudburst. The rainstorm had filled the dry, old stream bed, and a flood of water was rushing down the canyon.

From the loud roar, Joe knew there must be a great wall of water coming. If it were very deep and swift, it would rush over the bank and flood the cornfield. It would surely carry off anything caught in the river bed.

Joe thought of his family and the loaded horses. He ran back as fast as his legs could carry him to warn them of



Driving their horses ahead of them, the Manygoats' scrambled up the sides of the canyon just in time to escape the angry, rushing flood. As the foaming waters roared down the river bed, Joe knew they were lucky to be out of the way. Anyone caught in that flood would soon drown.

the approaching danger. He ran very fast, but even so the noise grew louder as the water came nearer. It sounded as if the water were already on his heels.

The river bed wound about so much that Joe could see only a few yards ahead; but finally he turned a bend and saw his family. He waved his arms and shouted and pointed up the river. They knew at once what he meant, and when they stopped to listen they too could hear the rushing water.

Quickly they looked for a safe place. At that point the banks of the river bed were high and steep. The family had to turn and go back to a place where they could climb up the bank, driving the horses ahead of them.

They were not a minute too soon. Just as the last one reached the top of the

bank, a roaring wall of foaming, muddy water came rushing round the bend. It was broad and high, running furiously. Many shrubs and branches had already been caught in its swift current, and as they whirled past, Joe was glad he had scrambled out in time.

At the Canyon

The flood lasted for several hours. By the time the Manygoats' were able to reach their field on the other side of the river, it was too late to start work that day. They unloaded the horses and put their things in a log shelter which Old Man Salt had built many years ago. Since they stayed here only a few days each year, they did not need a regular hogan like the one on the plateau.

In almost no time at all Jessie had a fire going and the supper cooking. They

ate an early supper so they could get a long sleep before starting to pick corn the next day. The first day they would all work in the field belonging to one of Joe's aunts. When her corn had been all picked, everyone would help in the Manygoats field.

There was a great deal of corn to pick this year, and between the rows of corn were many ripe, yellow squashes. It was a fine, big crop because they had had rain at just the right times—once when the corn had first come up and again when it was almost ripe. A big crop meant more work, but it also meant they would have plenty to eat all winter and next spring too. This corn had to last until next year's crop was ready to harvest.

All day long they picked the ears of corn. In the evening the women husked part of the corn, pulling off the husks and tossing the ears onto a pile. After two days there was a big pile of many colors. Some of the corn was yellow and some was red and some was blue. There was

also some green corn which was just right for eating.

At night Joe said he dreamed about corn. "I have seen so much of it," he told his cousins, "that I know I am going to wake up some morning and find I have turned into a cornstalk."

By the fourth day all the corn in the two fields had been picked. Some of it was stored in a hole near the field. This hole was almost as deep as a man is tall. Its floor and sides were covered with bark from cedar trees to keep it dry. After the hole was all filled with ears of corn, the top was covered tightly with more cedar bark and then with dirt and rocks. The corn was now protected from animal thieves.

The rest of the corn was put into big burlap sacks, and these were then loaded upon the horses and the aunt's mules. Joe was too small to help with the loading, but he could climb on top of the sacks on one horse and lead the other.

The path seemed even steeper going up

The Manygoats' harvest their corn in the canyon fields. There the horses find more grass to graze on than on the plateau. After the harvest the Manygoats' will take home with them as much corn as the horses can carry. The rest of their crop is being buried in a hole in the ground. As they need corn, they will come back and get it from the hole.



than it had been coming down. The horse Joe rode was very sure-footed and picked his way carefully along the rocky trail. When the Manygoats' reached the plateau, they put the sacks on the wagon and drove back to their hogan.

The first thing they did when they got home was to pack their corn away in an underground storeroom. They were very glad to have the storeroom so full, for it would be a long time until another harvest. The squashes were stored along the back wall of the hogan. There were enough of them to last the family until the middle of winter.

All the Navaho families on this plateau grew corn and squashes. But none of them really owned the land which they farmed. All this region was part of an Indian *reservation*, which meant it had been set aside, or *reserved*, for the Indians. Each family was welcome to settle anywhere on the reservation it pleased so long as no other family was using the land it wanted. The Indians could leave their fields any time they wanted to and go in search of better land. But so long as they continued to use a field year after year, no one could take it away from them.

AT THE TRADING POST

One day a few weeks later, Tom and Jim got up very early in the morning, before the sun was even up. They went to the corral and let out the sheep and lambs. Then with the three black dogs, they started off for the store where they always did their buying and selling.

A little later Joe and Jessie and Isabelle set out for the store in the wagon. The wind blew sand into their eyes and

Things to Talk About

1. Why did corn usually grow better in the canyon than it did on the plateau?
2. Why did Joe like the corn harvest? Would you like it?
3. Have you ever been in a cloudburst? Have you seen a flood? At the time of the cloudburst, how did Joe show that he could think quickly?
4. How did the relatives help each other? Do you ever help your relatives? Do they ever help you?
5. Have you ever seen an underground storeroom? In what other kinds of places are foods stored?
6. What is meant by an Indian reservation? Have you ever been on a reservation?

Things to Do

1. Collect samples of as many kinds of corn as you can.
2. Act out some part of this story without saying anything. Ask your classmates to tell what you were doing.
3. Find the word *foods* in the index. Find the numbers of the pages on which you can read about Pimwe's foods. Make a list of Pimwe's foods. Next, find the pages on which you can read about José's foods. List them. Start a list of the foods that Joe eats. Make this list longer as you read the story.

mouths. It filled the wagon ruts with sand until the road was almost covered.

For Joe, as for most nine-year-old Navahos, a trip to the store was always exciting. His family did not need to go often, because they raised most of their own food.

The road to the store wound across the plateau toward the foot of the mountain. Then it passed the head of a small can-



Courtesy New Mexico State Tourist Bureau

On their way to the trading post, these sheep are driven past another kind of Navaho hogan. It is different from those on page 3 and page 94. The walls of this hogan are made of stones, piled one on top of another. The branch-covered shelter on the left is used by the women for cooking, washing, and other work.

yon, where the store and the storekeeper's house stood.

In the canyon there was a little creek which flowed steadily from a spring in the mountainside. Some tall cottonwood trees grew along the creek. They grew up tall over the store and house and made more shade than could be found anywhere else for miles around. Not far away stood the little schoolhouse which Tom went to. Later on Joe would go there to school, too.

Trading the Lambs

By the time Joe, Jessie and Isabelle reached the store, Jim and Tom had already arrived and were driving the sheep into a big corral. Then the whole family helped to sort out the lambs which they wanted to sell. There were forty of these lambs in all.

Then Joe went inside the store. This was the only place where Joe ever heard English spoken. The Manygoats', like most Navahos, spoke only their own language. The storekeeper was a white man, but he spoke both Navaho and English. The storekeeper's family were about the

only white people Joe had ever known.

Joe stood quietly in one corner for a while looking at the other Indians in the store. Most of them were related to him.

While his parents talked with the grownups, Joe wandered over to the showcases and counters and began looking at the storekeeper's stock. He saw everything from candy bars to big saddles. He wondered what his family would buy this trip. They should be able to buy many things, because it seemed to Joe that forty lambs must be worth a great deal of money. Of course, the storekeeper would not pay them cash for the lambs. He never did. Instead he would allow them to pick out such things as they wanted in exchange for the lambs.

Other Navahos also brought to this store some of the things they raised, such as wool and corn; some of the things they picked, such as pine nuts; and some of the things they made, such as rugs and moccasins. In exchange they took back the goods they needed — flour, coffee, cloth, tools — and sometimes canned foods, such as tomatoes and pears.



On the reservations there are trading posts where the Indians can exchange their lambs, wool, jewelry, and blankets for the things they do not raise or make — such as sugar, coffee, wheat flour, fresh fruit, tools, and knives.

James Sawders

The Wonderful Knife

Suddenly Joe stopped. In one of the cases was the most wonderful knife he had ever seen. It had a shining black handle and three sharp blades. How he wished he could have such a knife! He knew there would be no money to spare for it this year. After buying the things they needed, there would be no extra money for a knife for Joe. But sometime he would be able to buy it.

Everyone in the Manygoats family, children and all, had his own sheep. When there were any lambs or wool to be sold, most of the money went for things the whole family needed, such as flour and sugar. If there was any money left over, each one could buy something for himself.

Joe thought of the six sheep his grandfather had given him that summer. He decided that if he had a fine sack of wool in the spring, he would trade it in and use part of that money for the knife.

The Trip Home

Later in the day as the wagon wound along the road on the way home, Joe kept thinking about the grass and about how his six sheep and all the rest of the

flock had to walk and walk to find enough to eat. There was never very much rain in the desert so the grass was always thin. Everywhere he looked, Joe could see as much bare ground as he could see grass.

Joe hoped there would be some long, gentle snowstorms that winter. Then plenty of moisture would be stored up in the ground to help the grass grow thicker next summer. That would also help fill up the springs and make pools in the hollow places in the rocks. Then they could water the sheep near home instead of driving them all the way to the creek.

The Manygoats wagon finally came to a place in the road where there were several huge, bare, reddish boulders. Here they turned into an even narrower road which led to their home. They had not seen any people or any houses since leaving the store.

Families lived far apart so that there would be room for the sheep to graze. Their camps were always set back from the main road. The only sign that a camp was near was the distant barking of dogs or a column of smoke curling over the crest of a hill.

Sagebrush grows thickly in dry desert places where few other plants can live. This shrub is important as food for sheep in the wintertime. In the background of the picture you can see low distant mountains rising above the flat plateau.



J. B. Guss—Black Star

Things to Talk About

1. What were the pleasant things about going to the store? What were the things that were not so pleasant?
2. How was trading in the store in the canyon different from trading in the store where you go? If you have ever traded something that you owned for something else that you wanted, tell about it.
3. Do you know anyone who speaks two languages? What two languages did the storekeeper speak?
4. Tell about one of your most interesting trips to a store.
5. In what ways did snowstorms help the Manygoats'?
6. Why did people live so far apart in the Navaho country?

Things to Do

1. Make a picture story of the trip to the store.
2. Write sentences that tell about:
 - a) Trading the way the Boro Indians do it.
 - b) Trading as the Malay people do.
 - c) Trading as it is done in Central America.
 - d) Trading as the Navahos do it.
 Do not mention the names of the people in your sentences. Read them to each other and guess which people the sentences tell about.
3. Make a list of the things the Navahos bought at the store.
4. Pretend you were in the store watching Joe when he saw the knife. Write a letter to one of your classmates telling about it. Tell whether or not you think Joe will get the knife.

VISITORS AT THE MANYGOATS HOGAN

One afternoon a few days later as Joe and Tom were returning home, they noticed two horses tied to a post in front of the hogan. "Those are Uncle Littleman's horses!" said Joe. Although Joe was only nine years old, he knew most of the horses for miles around.

His uncle was called Littleman because he was so short. He lived about thirty

miles to the south. The Manygoats' did not see him often, and so the boys wondered what had brought him here and who was with him.

After putting the sheep in the corral, they went into the hogan. Uncle Littleman and his son were there. Joe and Tom shook hands with them and sat down. Littleman had brought them a

large sack of peaches. There were many peach trees in a canyon near his hogan. He knew the boys would enjoy the taste of the sweet, juicy fruit. He said there had been many peaches on the trees, but that their corn crop had been poor. There had not been enough rain. Jim spoke of their fine crop and their full storehouse. "You must not go home without taking some corn with you for you and your family," he told Littleman.

The Latest News

After supper, Littleman told them the news. The most exciting story he had to tell was about an automobile trip to the city of *Gallup*. He had gone with a storekeeper who lived near him. Littleman told the Manygoats' all about the big stores, the many automobiles, and the electric lights in Gallup. None of the Manygoats' had ever been to a city or ridden in an automobile, so they were eager to hear all about it.

Littleman also told them about the people from his part of the country who had died and about those who had married and about the babies that had been born. Most of these people were relatives of the Manygoats', and so they were glad to have news of them. This was the only way news traveled among these people. There were no telephones or newspapers.

Littleman talked of different people and of different places. He spoke of how thin the grass was. Every year it got worse, he said.

Old Man Salt's Story

Old Man Salt spoke up: "It was different when I was a boy. The grass was so high it came up to the sheep's bellies and even to their backs. There was plenty of good pasture then. But the herds grew

larger and larger, and the sheep ate the grass faster than it could grow. Now there is hardly enough grass to keep the sheep from going hungry."

Back in earlier times, long, long before Old Man Salt's days, his Navaho ancestors had had no sheep. If Joe Manygoats had lived 500 years ago, there would not have been any sheep for him to herd. Instead, he would have learned to shoot with a bow and arrow and to hunt wild animals. Instead of stew made of mutton, he would have eaten deer meat.

In those long-past times, Joe would not have gone to the canyon for a corn harvest. Instead, he would have gathered many nuts and wild berries growing on trees and bushes. Still earlier than that, the Navahos had not lived in this region, but in the forest lands of what is now western *Canada*. They had made their living by hunting wild animals and gathering wild plant foods.

Perhaps 800 years ago they traveled south. At last they came to the region in which they now live. They continued for a time to hunt and gather wild plants to eat. But from the farming Indians who were already living there, they learned to plant corn and squashes. These farming Indians who taught the Navahos about planting are today called the *Pueblo* Indians.

All this happened before there were any white men in North America. It was fifty years after Columbus discovered America before any white men set foot in the region now known as *Arizona* and *New Mexico*. The first Spanish explorers arrived around 1540. Soon afterward they started settlements there. They brought with them sheep and cattle.



Courtesy Atchison, Topeka, and Santa Fe Railway

This is a village of the Pueblo Indians, who also live in the Southwest near the Navahos. The Pueblos live in adobe homes built one on top of the other, in somewhat the same way as our apartment buildings are made. They reach their homes by ladders. These Indians bake bread in outdoor ovens like the ones in the picture beside which the men are standing.

After a time the Pueblos and the Navahos began to herd sheep also. They found the sheep to be very useful animals.

Gradually, changes came in the ways of living among these Indians. This is the reason why Joe Manygoats was living a very different life from that of his ancestors, even though he did live in the same country in which the Navahos have lived for many hundreds of years.

Every year Littleman visited the Manygoats' about the same time. In the summer he kept his cattle up on the side of the mountain, where the grass was rich and green. They stayed there all summer without being watched. Whenever Littleman needed some meat, he would kill one of the animals.

Signs of Fall

In the fall, Littleman would drive his cattle down into a warm canyon where there was only a little snow during the

winter. Here the cattle could find plenty to eat. They would starve on the mountainside, for deep snows cover the grass in winter.

Littleman's visit was one sign that fall was ending and that winter would soon set in. Another sign was the ripening nuts on the pine-nut trees. These scrubby, sturdy trees began dropping their nuts in late fall. Some years the Manygoats family had to go a long way to pick as many of these nuts as they wanted.

Some of them they sold at the store, and some they kept to eat during the winter. This year they heard that the crop of pine nuts was small, so it was not worth while going far to gather them. Instead, they picked the nuts from the trees near by. One needed sharp eyes to see the tiny brown nuts lying on the brownish ground among the pine needles. The sheep ate any that were not found.

Things to Talk About

1. What part of the news that Littleman brought do you think was most interesting to the Manygoats family?
2. How has the Navaho country changed since Old Man Salt was a boy?
3. Where did the Navahos live before they went to this part of the United States? Who were the first white men in this region?
4. Tell how the Navahos learned to raise their food.
5. What kind of nuts did the Manygoats' gather each fall? What did they do with

them? What kinds of nuts have you gathered?

Things to Do

1. Try to find out who the first settlers in your region were. Learn as many things as you can about the way the people lived there in the early days. Have there been as many changes where you live as there were in the Navaho country?
2. Make a collection of different kinds of nuts. Learn as many of the ways in which each kind is used as you can.
3. Tell about the interesting books that you are reading.

GETTING READY FOR WINTER

Every year, just before winter set in, the Manygoats' moved their camp. The hogan they lived in during the summer was fine for warm weather. It was out in the open where the breezes kept it cool. But it was too cold in winter. So they moved at the first sign of cold weather.

The winter hogan was near one of the mountains to the north. The mountain cut off the winds, and less snow fell there than out in the open. Then, too, this hogan was near another spring. The family would not have to go so far for water. Of course, they could get some of their water in winter by melting snow and ice, but not enough to take care of all the needs of the family.

Moving Time

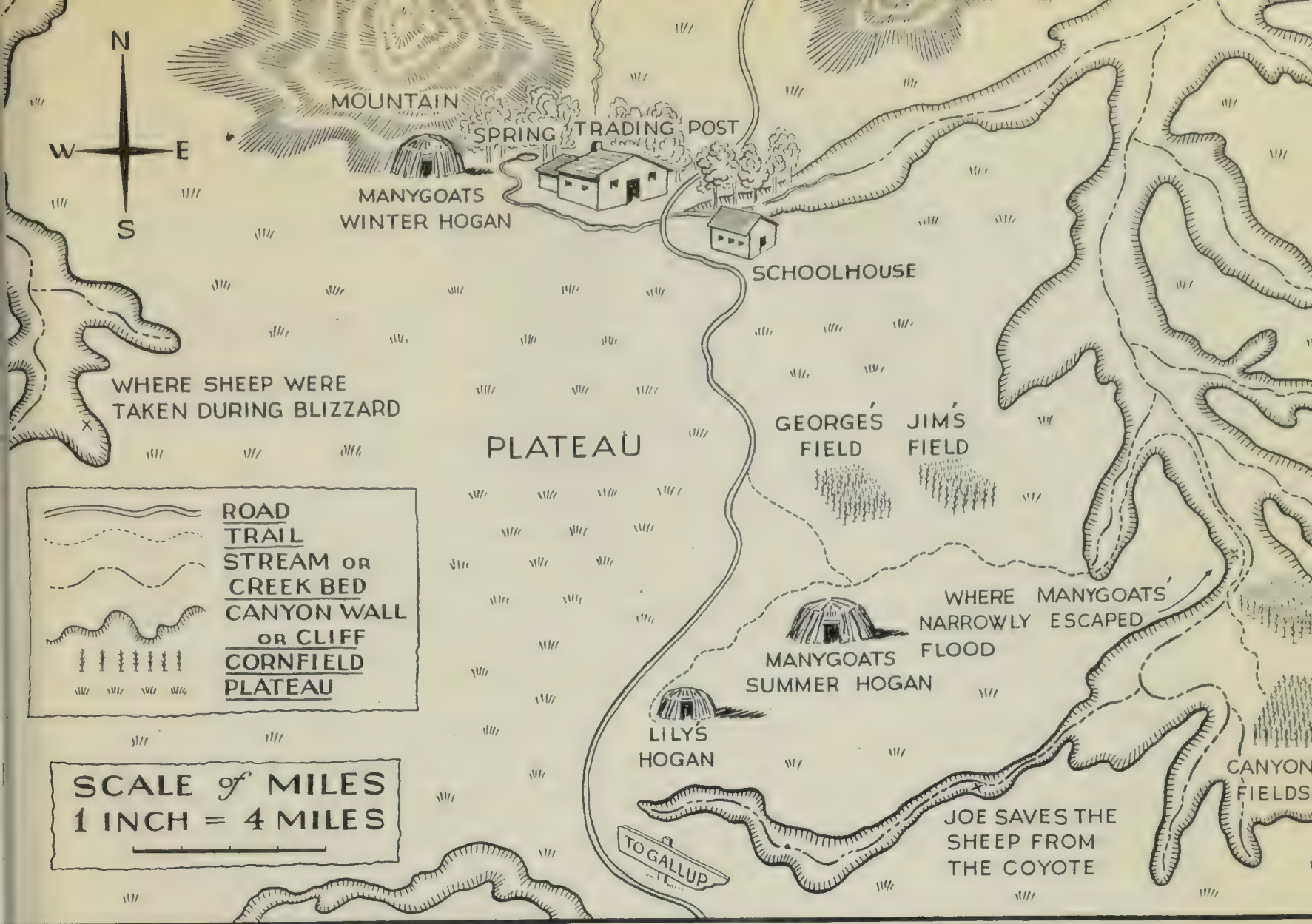
When the time came to move, the Manygoats' piled their blankets and sheepskins, their pots and pans and kettles, and their strong wooden box on the wagon and made the journey to their winter hogan. George Grayeyes and Lily moved into a near-by hogan of their own.

George and Jim had already spent a day repairing the hogans. They made sure that all the logs were firmly in place and that there was enough mud plaster in the cracks to keep out the winter snow. They also mended the corral fence and gate so that the sheep would stay in and the coyotes would stay out. They moved their herd of horses too.

The horses were not kept in a corral like the sheep. They were allowed to wander around as they wished, but they never went very far away. When the Manygoats' moved, Tom rounded up all the horses and drove them over to the mountain near the winter hogan.

Most of the other Navahos moved into winter quarters too. In this way, everyone had new pasture for his sheep in winter. In the summer the sheep grazed out on the open plateau, but in winter they stayed close to the foot of the mountain, where there was less snow to cover the grass.

Some families had more than two hogans. If the pasture around one hogan



This is a map of the country around Joe Manygoats' home. Above the scale of miles there is a "key" to tell you the meanings of the different lines on the map. The first meaning is "road" and it is shown by two lines running along side by side. Do you see these two lines on the map? See if you can find the trail that is shown by a dotted line. See if you can find the creek bed.

was good enough to last all summer, they would stay there. Otherwise, they might move to another hogan in the middle of the summer in order to get new pasture. Even so, the Navahos did not move so often as their grandparents of long ago, who had been hunters. Now the Navahos moved their camps only to find grass for the sheep and not in search of *game*.

Thanksgiving Preparations

Soon after the Manygoats' had moved to their winter hogan, they began to get things ready for their *ceremony* of thankfulness and blessing. They would be led by a special singer who knew the prayers and songs that were part of the ceremony.

Joe's aunt, Gray Woman, and her husband had asked this singer to come. He lived far away, but everybody knew him.

The singer would ask for a blessing upon Joe's aunt and her family and upon all their sheep and horses and other possessions. The Navahos believed that if they took some time for a ceremony, they and their sheep would always be safe from harm, and they themselves would have good fortune.

Many people who lived on the plateau would come and spend the night and day during which the ceremony lasted. Gray Woman and her family would have to feed all these visitors, so the Manygoats'

offered to help provide the food. They said they would butcher a sheep and make some bread. Lily and George Grayeyes said they would bring some fine squashes they had saved from their garden. Joe's other aunt said she would bring some food too, and she would give something to help pay the singer. Tom chopped wood for the cook fires and hauled water from the spring. So all the relatives were helping each other again, just as they did at the corn harvest.

Early in the morning on the day before the ceremony was to begin, everyone in the Manygoats family washed his hair and put on his best clothes. All of them—father, mother, sons, and daughter—had long hair. All the women wore their hair the same way—in a double loop at the back of the neck, held in place by some white cord.

Their best clothes were just like their everyday clothes, but newer. Jessie had a new red skirt. It was very wide and long and looked well with her green velvet blouse. She had bought the blouse

and skirt at the store. There were many silver buttons on her collar and sleeves. These had been made for her by George Grayeyes. She opened the wooden storage box and took out all her jewelry. She had some fine silver bracelets and some rings with *turquoise* set in them.

Jim wore his new blue denim pants and a red flannel shirt. He had a bright, yellow handkerchief tied around his head. Isabelle was dressed just like her mother except that she did not have much jewelry. Joe's shirt and pants were as clean as could be. Tom had two big, red handkerchiefs, and so he let Joe wear one of them.

Lily went to her aunt's early in the morning to help prepare the food. She and Gray Woman's daughters were busy nearly all day making bread and preparing the meat. They had a good time as they worked. They did not often spend a whole day together this way, so they joked and laughed and gossiped. The rest of the Manygoats family arrived late in the afternoon. Soon the other Indian families began coming.

Arrival of the Guests

All afternoon people arrived at Gray Woman's hogan for the ceremony. She had two hogans close together. One was used as a kitchen, and the women spent most of their time in it preparing the food. The other hogan was used for the ceremony. The singer was already there, and he and the other men sat in the larger hogan talking and joking.

Before the ceremony, the women washed and brushed their hair. Both men and women wore their best clothes. Do you see all the beautiful silver and turquoise jewelry this girl is wearing for the celebration?

Courtesy U.S. Indian Service



From near and far the friends of the Manygoats family arrived for the ceremony. The women wore their finest clothes and blankets and much silver and turquoise jewelry. Many of them came by horse and wagon.



H. Armstrong Roberts

Joe and the other children moved about as they wished. For a while Joe sat in the kitchen hogan, enjoying the delicious odors of the cooking food. Sometimes he slipped out with a sample to eat. Then he would join his father in the other hogan and listen for a while to the talk of the men.

The singer did most of the talking. His name was Left-Handed, and he was a tall, slim man with gray in his hair. As he came from a place about forty miles to the south, he brought news of many people who were unknown to the Manygoats'. Left-Handed traveled about a

great deal and led ceremonies for dozens of families. In this way he saw many people and carried news from one camp to another. Everyone enjoyed hearing him talk because he was very wise.

The Ceremony

In the evening the ceremony began. Left-Handed had a rattle made of a dried gourd. It contained seeds which made a noise when he shook it. He shook the rattle slowly several times; then he began to rattle it in a regular rhythm and sing. Many of the women had come in from the kitchen hogan. They sat on one side of the room, and the men sat on the other.

The singer shook the gourd and sang songs, and one by one the other men joined in the singing. The songs were the same as the Navaho people had sung for many years, asking the Great Spirit for blessing and protection.



Courtesy U.S. Indian Service



When the Navahos are sick, they call the medicine man. One thing he does is to make a sand painting. He makes the colored sand by grinding different-colored rocks. Then he sifts it through his fingers, making many patterns. This is part of a very sacred ceremony.

Giles—Black Star

One by one the men joined in the singing. Their voices were strong, and the singing filled the hogan. They sang on and on. They sang all through the night, pausing only twice to eat the food the women brought in. One song went like this:

“Great Spirit,
Your offering I make.
I have prepared a smoke for you.
Restore my feet for me.
Restore my legs for me.
Restore my body for me.
Restore my mind for me.
Restore my voice for me.
Happily may I walk.
Happily may I walk.”

Other songs asked for blessings and protection for all the things the Navahos loved and needed—for the children, the sheep, the house, and the corn. Joe was not old enough to sing, but he knew most of the songs by heart. Before many years he would be able to sing with the men instead of spending part of his time with the women in the kitchen.

Things to Talk About

1. Why did the Manygoats' move every fall and spring? Why did the early Navahos move more often than that? Would you like to move several times a year?
2. Tell why the Navahos take time for a thanksgiving ceremony each year. In what ways is it like ours? How is it different?
3. Tell about the preparations for the ceremony. Do you think the women minded the extra work?
4. How do you suppose Left-Handed got his name? What Indian names do you know besides the ones in this book?
5. How does the Navaho thanksgiving remind you of the fiesta of the planting season in José's village?
6. How do you suppose the Navahos learned their songs?

Things to Do

1. Try to make up a tune for the song the people sang at the ceremony. Sing the song to your tune. Perhaps you can find other Indian songs, too, in some of the books you are reading.
2. Make up a song of thanksgiving that would be suitable for the Navaho Indians to sing.

WINTER IN THE DESERT.

Winter seemed to come more slowly than usual in the Navaho country this year. Joe was glad of this because it meant he could drive the sheep a long way for grass without having to watch the sky for signs of snow. But it was growing colder, and Joe had to button his sweater and turn up the collar around his ears as he walked along with the herd.

People spent more time indoors now. Jessie had set up her loom and had begun to weave a rug. She was weaving it from wool they had sheared from their sheep the spring before.

Weaving Rugs

Every Navaho woman knew how to weave. Jessie helped support her family by weaving and selling rugs. She put a great deal of work and time and skill into it.

Isabelle helped her with the weaving.

After the wool had been sheared from the sheep's backs, it had to be combed so that all dirt and burrs were cleaned out and the fibers were straightened. Then the wool had to be spun into a long thread, thin but strong. There was much work to all this, and a girl's hands grew strong while she learned to handle the wool.

After the thread had been spun, it was still not ready to be woven. First it had to be dyed. Many Navaho women dyed their wool with colors obtained from the plants and shrubs that grew in the desert. One of Joe's aunts was an expert with these plant dyes. She knew which plants made the best dyes. She could tell you what time of year to pick one to get a particular color. Isabelle was learning all this from her aunt.

While she was cleaning and spinning

Navaho women wind or spin wool on spindles like the one in the picture below. After the wool has been spun many times it becomes strong tight yarn, ready for weaving. The little girl in the other picture is learning to weave rugs and blankets. After much practice, she will become an expert weaver, like most Navaho women.

Photos: H. Armstrong Roberts, Ewing Galloway



the wool, Jessie was thinking of the rug she was about to weave, and she was planning its pattern. It was to have a white background covered with red, yellow, and blue triangles. She could picture exactly how each part would look before she had even started weaving. It was to be a large rug, and since she worked on it only in the time she could spare from her housekeeping, winter might be nearly over before the rug could be finished.

The First Snow

When the first snow came to the plateau, Joe was sound asleep in the hogan. During the night several inches of snow fell. When Joe went out in the morning, there was wet snow clinging to every twig and pine needle. All that day and night the snow continued to fall. In the open places the drifts were deep, but back against the mountain where the Manygoats hogan stood it was not yet too deep for the sheep to move about and find some food.

But when the snow piled up so high that the sheep could hardly get through it, Joe and his family began to worry. To find food for 400 sheep was no easy matter. The Manygoats' beat the snow off the bushes so that the sheep could get at the leaves. They decided that if more snow fell during the night they would have to drive the sheep into one of the lower, warmer canyons to save them from starvation and freezing.

That night it grew very cold. The temperature dropped below zero, and the Manygoats' were up all night caring for their sheep. They brought some of the thinnest and weakest sheep inside the warm hogan to keep them from freezing.

Joe was worried about one of the sheep his grandfather had given him. This animal had been weak and thin since injuring its leg a month before. He found it shivering against a tree and carried it into the warmth of the hogan. Then he put a blanket around it and kept it near the fire.

Joe was worn out from working with the sheep in the snow all day, and he soon fell asleep beside his sheep. When he woke and saw that it was almost daylight, he hardly dared ask about his sick sheep.

His mother was just putting some coffee to boil on the fire. She said it had been a very bad night. In spite of all their efforts, four of the sheep had died. One of these was Joe's.

After that no one doubted that the herd had to be moved. It was the worst snowstorm in many years. Old Man Salt went out into the snow and made a prayer that the sheep might be saved. Moving the herd was a job for the entire family. Jim and Tom went ahead with shovels to clear a way through the snow drifts. Lily and George Grayeyes helped drive the sheep.

They had a hard time keeping the sheep moving. They were wet and cold and bleated unhappily. A hard crust had formed on the snow. When the sheep got off the path and broke through into the soft snow, they became frightened and would not go on. Jim and his family urged on the sheep, for they feared that the weaker animals would die before they reached the shelter of the canyon.

By nightfall they had traveled several miles and had come to a little gully where there was less snow. They drove

the sheep into the gully for shelter, and spent the night shivering about a fire.

All through the next day they drove the sheep. Finally in the evening they reached the big canyon. Everyone was tired out, and the sheep could scarcely move. But they were safe now. Little snow had fallen at the bottom of this canyon, and there was plenty of grass and bushes for the sheep to feed on. In a week or two the sheep would be strong again.

The rest of the family returned home, but Jim stayed in the canyon with the sheep. Every day George Grayeyes visited him with food.

After the storm had ended and the snow had partly melted, Jim and George brought the sheep home. More snow fell from time to time, but never so much that the sheep could not find something to eat in the sheltered places near the Manygoats hogan in the canyon.

The hogan was warm and comfortable, and the family spent much of their time indoors. They saw even fewer people than in summer, but sometimes a neighbor passed on horseback and stopped for a visit and something warm to eat.

The New Lambs

One of the busiest times at the Manygoats camp came when the lambs were born. This year the snow was all gone and there were signs of spring when the lambs came. The Manygoats' were glad of that, because now there was no danger of the lambs freezing. The whole family was kept busy day after day caring for them. The lambs were so weak and tiny that they seemed more like toys than live animals.

There were many lambs this year, and



Frances Cooke Macgregor

Sometimes lambing time comes before the snows are gone. Then the new lambs are taken inside the hogans to keep them warm.

that made everyone happy. Old Man Salt was pleased to see so many lambs. He said, "That is the way it should be. When there are many lambs, there will be plenty of meat and wool for the coming year."

But Joe was the happiest of all, because one of his own *ewes* had given birth to twin lambs. It was fine to have one lamb, but it was more than twice as good to have twins. The twin lambs were tiny and not very strong. But Joe and his mother watched them carefully, and they grew bigger and stronger. As he counted all his sheep and lambs, Joe thought that he would have a big herd by the time he became a man.

Every member of the Manygoats family had a special way of marking his own sheep to tell them from the others. The sheep belonging to Joe's mother had a little notch cut in their left ears. His father's sheep were marked with notches in the right ears. Joe's sheep had both ears notched. These were their brands, and they had to mark the lambs to be able to tell who owned them.

Things to Talk About

1. How was the work of the Manygoats' different in winter from their work in summer?
2. Tell the story of a rug from the time the wool is on the sheep's back to the time the rug is finished.
3. Of the families that you have read about so far, which do you think had to work the hardest? Which do you think had the most fun?
4. Can you tell about any other snowstorm that made a great deal of extra work for people?
5. Tell about any lambs that you have seen. Have you seen twin lambs or any other animals that were twins?

6. Have you ever seen animals that were branded? What were the brands like? How did the Manygoats' mark their sheep?

Things to Do

1. Try to get some wool just as it comes from a sheep's back. Comb it, clean it, and try to spin it into thread.
2. Dye some white cloth, using dye that you make from leaves, berries, or some other part of a plant. Make as many colors as you can.
3. Draw some patterns for rugs. Use different colors and designs.
4. Find out the temperature when water is just cold enough to freeze. How cold does it get in winter where you live?

SPRING PLANTING

The days began to lengthen slowly as spring came. The cottonwoods near the creek started to bud. Soon it would be time to prepare the fields for planting. Spring came early down in the canyon, and the ground there was ready for planting sooner than it was on the plateau.

Work in the Canyon

Word went around among the camps on the plateau that in three days all the men would go down to repair the *irrigation ditches* which watered the fields in the canyon. These ditches carried water

from a spring in the canyon wall to the fields on the floor of the canyon.

This spring ran all summer and furnished enough water to keep the fields green. The spring bubbled out from among the red rocks. The ground near the spring was always damp. The grass grew greener there than elsewhere. It was very different from the rest of the dry country.

Every year before the fields were planted, the leaves and branches and stones that had fallen into the ditch during the winter had to be cleaned out. The walls of the ditch had to be repaired. After the ditch was cleaned, the men repaired the fences surrounding their fields. The fences were there to keep out the horses and cattle which might be grazing in the canyon.

Irrigation is very important in this country of little rain. In the government schools the Indians learn new ways to irrigate their fields so that many crops can be grown.

Courtesy U.S. Indian Service



The Navahos work hard in their fields, preparing the ground for the spring planting of corn, beans, squash, and other seed.

Courtesy U.S. Indian Service

Farming on the Plateau

After everything was ready for planting down in the canyon, it was time to prepare the farm land on the plateau. Since these fields were small, the men of each camp worked only on their own fields. Joe went with his father and Tom to help with this work. That was the way he learned about the farming he would be doing all his life.

At this time of year everyone was thinking and talking about the corn he was going to plant. Squash seeds would be planted too, but the corn was more important.

At night, after the day's work was done, Jim talked to his sons about their cornfields. He told them how important it was to be strong and work hard in order to have a good crop. "A lazy farmer," he said, "never has enough to feed his family."

He told them how careful they must be to choose the seed from the healthy ears of corn. He showed them the seed he had saved from the harvest the fall before, all from stalks free from insects and corn diseases. He taught them the songs a man must sing when he plants and when he harvests. "These songs help the seed and the ripening corn," he said.

Joe and Tom had heard these words before, but they listened to their father's advice because they knew he was a good



farmer. Joe listened more closely this year than ever before. He knew that soon he would be helping in the fields along with the men.

That is the way Joe would learn how to make a living by farming. In a year or so he would go to school, as his brother Tom had done. There he would learn to read and write. He would study from books. But first he was learning from his family how to care for his sheep and how to raise good corn.

Joe's father told them how they might know when to plant. He said to watch the stars. "When certain stars are in the west, then the corn can be planted and it will grow." That time had already come, and word went round again among the people on the plateau that in two days they should go into the canyon to plant the corn.



In the government schools Indian boys and girls study reading, writing, and history. The boys also learn trades, and the girls learn homemaking.

H. Armstrong Roberts

Back to the Canyon

All the families went to the fields again for the planting. They worked on one field at a time, and when that was finished they all went on to the next field. They said the work seemed to go faster when they worked together. When it was noon, they usually stopped wherever they were. The women of the family that owned the field on which they were working fed them all. Sometimes they worked so hard they did not stop at noon, but worked right through the day.

They planted the corn in long rows. A man went first in each row, working with a digging stick. This stick was made from a branch of greasewood bush. It had a sharp point which the farmer pushed into the ground. He had to press it down until the point of the stick reached the damp earth under the dry soil on top. When the hole was made, the farmer's wife dropped the corn seed in it and placed some earth on top of it. In this way they worked along until they had the whole field planted.

Between the rows of corn they planted squash seeds. Squash planting was done at different times so that the squashes would not all ripen at once. Sometimes while they were planting, they sang songs about the seeds and the earth and the rain. They sang to help the corn grow. After the whole field had been planted Old Man Salt sang this song:

"The seeds have gone into the ground
In the middle of a wide field.

They have gone into the ground.

White Corn Boy has gone into the ground.

Yellow Corn Girl has gone into the ground.

Good and everlasting ones, they have gone into the ground."

Everyone was happy when the corn was planted. It had been a long time since the harvest last fall, and their supply of corn was getting low. Now that the seeds were in the ground, they knew it would not be many months until they had another harvest.

Things to Talk About

1. Can you think of any reason why spring came earlier in the canyon than on the plateau?
2. Why are irrigation ditches necessary? Have you ever seen irrigation ditches in a field? How do you water your garden or lawn in dry weather?
3. How did Joe learn to do the work that he would do when he grew up? What did his father teach him at night? What would he learn in school?
4. Do you think that watching for certain stars is a good way to tell when to plant corn?
5. Tell how the corn was planted. Why did the planters sing as they worked?
6. Why were the squash seeds planted at different times? How many uses do you know for squashes?

Things to Do

1. On your sandtable, show how the irrigation ditches looked in the fields in the canyon.
2. Find a sharp-pointed stick that is like a digging stick and make holes in the ground with it as the Indians do. Is that an easy or a hard way to plant corn?
3. Make up a tune and sing the song that Old Man Salt sang when the field was all planted.
4. Make a list of what you think are the most important things Jim taught his son.
5. Make a picture story about spring planting. Show your pictures to each other and take turns in reading the stories that they tell.

SHEARING THE SHEEP

The grass had worn very thin around the Manygoats hogan near the mountain, so they decided it was time to move out on the plateau again for summer grazing. The land around their summer hogan on the plateau had not been used all winter, and the grass there was fresh and green. The moisture from the winter snows had helped it grow. This would be fine for the sheep and new lambs.

One day shortly after they had moved to their summer hogan, Jessie said it was time to shear the wool from the sheep. Joe said that when he had the sheep out grazing they liked to rub themselves against rocks. This meant that they were beginning to shed the thick coats of wool which they had grown during the winter. The Manygoats' decided they had better shear the sheep before they rubbed off their wool and left it hanging on the bushes.

Joe was very happy at the thought of shearing. Several times he had felt the thickness of the wool on the backs of his own sheep. He was thinking of the knife he had seen at the store and was wondering whether he would be able to get it this spring.

Hard Work

It took a long time to shear 400 sheep, and it was hard work. So Jim and George built a shelter for the workers to sit under while they were shearing. It was made of poles with pine branches put across the top to keep out the sun.

This sheep is losing its winter coat of thick wool. Do you see the dirty wool on the ground? This was the outside coat. It is full of sand, dirt, and burs, but the wool next to the sheep's skin is clean and white.

Courtesy U.S. Indian Service

When they were ready to start, Joe and Tom had the job of catching the sheep for their mother and father and Lily to shear. The sheep were all in the corral, and Joe and Tom caught them one by one and led them out to be shorn.

The sheep were frisky and hard to catch, and some had to be dragged. The rest of the family laughed when a big *ram* butted Joe in the stomach and broke away from the boys. When they caught him again, Joe grabbed his horns and pushed, while Tom lifted his hind legs off the ground and pulled. Finally they got him over to their father. After they had put the ram on his back and tied his legs together, he stopped struggling.



An Expert Shearer

Joe's mother was an expert shearer. She could work faster and get more wool than anyone else in the family. She cut the wool off in such a way that it all clung together.

Joe watched anxiously to see how his pile of wool was growing. The wool from each person's sheep was piled separately. Everyone in the family knew to whom each sheep belonged, even without looking at the brands on the sheep's ears. Joe had very little experience in trading wool, but he thought his pile looked very big and he felt sure he would have his knife before long.

Off to the Store

More than a week was needed to shear all the sheep. By the time the shearing was done, the weather was quite warm. One morning Jim got up early, hitched the team of horses to the creaky old wagon, and loaded some of the sacks of wool. Then they all set out for the store.

When they arrived there, Jim drove the wagon over to the scales, and the trader began to weigh the wool. Meanwhile, Joe and Tom went into the store. Joe did not walk at once to the case where the knives were kept, but stepped into one corner of the store. Tom exchanged greetings with some of the other people, but Joe was still a little bashful and at first only looked around to see who was there.

After a few minutes Joe's parents and the trader came in. The wool had been weighed and the trader told them it was worth \$105.00. Joe's mother and father talked a long time with the trader. He told them that the next time he drove his truck to Gallup, which was almost 350 miles away, he would take their wool with him. There he would sell it to another white man who bought a great deal of wool. That man would send it far away to some factories where it would be made into cloth.

From time to time many of the Navahos, Pueblos, and Indians of other tribes visit Gallup. At these gatherings some of the Indians perform their ceremonial dances. These Navahos are enjoying a view of the show from a near-by hillside.

Ferencz Fedor Studios—F.P.G.





Base map from Goode Series by permission of University of Chicago Press

The part of the large Navaho Indian reservation that the Manygoats' live on is in northeastern Arizona. Arizona is a state in the southwestern corner of the United States. Find your state on the map. Use the scale of miles and see if you can tell how far it is to Joe's home from where you live.

When Joe's parents had finished talking, they were ready to pick out the supplies they needed. They bought some sacks of flour and coffee and sugar. Tom got a new pair of shoes, and Joe's father chose a new hat. Isabelle got a new dress.

Joe's Reward

Then Jessie beckoned to him to come over to the counter. She said it was his turn to say what he wanted. Joe looked quickly at the row of knives. There was the very one he wanted! He pointed it out, and the trader handed it across the counter. Joe thanked the trader. Then he held the knife tightly in one hand and walked toward the door. Once outside, he went around the corner of the store to examine it. He opened and shut each blade many times. He tested the sharp-

ness of the edges and the points. It was a good knife, all right.

A long time had passed since he had first seen that knife; but as Joe held it in his hand, he thought that if you work hard and take good care of your sheep, you will be rewarded for your work, just as Old Man Salt had often said.

Things to Talk About

1. How could the Manygoats' tell that it was time to shear their sheep?
2. Who was the best shearer in the Manygoats family?
3. If you have ever seen sheep being sheared, tell all about it. Which part of the work would you like to do?
4. Why was the wool from each person's sheep put in a separate pile?

5. Can you think of any reason why the whole family went to the store when they sold their wool?
6. Would you mind waiting as long for something you want as Joe had to wait for his knife?
3. Think about the entire story of *Joe Manygoats* and make a list of all the different ways in which the members of the family helped each other. Read your lists to each other. You might also like to make a list of the ways in which you and your family help each other.

Things to Do

1. Try to find a story about sheep shearing in some other book. Read the story to the others.
2. Try to find out how much a pound of wool is worth. If the Manygoats' got that price for it, how many pounds of wool did they sell to the trader?
4. Copy from the last paragraph what Old Man Salt had often said to Joe.
5. Read aloud some of the most interesting or the funniest paragraphs in the book you are reading from the list on page 128. Try to read it so well that the others will enjoy it. Tell a little more about your book, and show some of the best pictures in it.

OTHER DRY LANDS OF THE WORLD

The Indian reservation on which Joe Manygoats and his family live is in the southwestern corner of the United States. This reservation takes in only a small part of a great dry region which extends far northward and far southward. The southern end of this desert region lies in northern Mexico.

Some parts of this great American desert are drier than others. In some places the pastures are so poor that not even a goat can find enough to eat. Around the edges of these driest lands, enough rain falls for scanty pastures to grow. Many sheep and goats are raised here, but they must move often and find new places to graze. The Navaho Indians live on this kind of desert land.

There are desert areas on all the continents except Europe. The map on page 123 shows the dry lands of the world that are hot during all or part of every year.

In the middle of Australia, there are large deserts where only a few people can live. These people move from pasture

to pasture with their flocks. Even so, during the driest years, many sheep starve.

The largest desert in the world is in Africa. It is called the *Sahara Desert*. This desert is nearly as large as the whole United States, and it is much hotter and drier than the desert in North America.

The Arabian Desert

The largest desert in Asia is in the country called *Arabia*. This desert is known as the *Arabian Desert*. In no other part of the world except northern Africa is there such a large, dry, hot region.

Nearly all Arabia is a desert, but not all parts of this desert are equally dry. One small part in the south has enough rain for coffee trees and some grain to grow. Light rains fall during the short winter. In other parts of Arabia several years may pass between showers.

There are no real rivers in Arabia, but there are many dry river beds. The people travel in them just as the Many-



This map shows the dry lands of the world. In which of these deserts does Joe Manygoats live? Can you tell which continent has the most dry land? Which desert is hotter in summer—the American or Arabian? What is the name of the largest desert in the world? Compare it with the United States in size; with the American desert in hotness and dryness.

goats family did on their way to the cornfields the day of the flood. Slow, shallow streams of water sometimes flow in these river beds during the winter rains.

Arabia is a peninsula, for there is water almost all the way round it, but it does not look like the Malay Peninsula. Can you tell how these two peninsulas are different?

The center of Arabia is a plateau. Around the edges of this plateau are miles and miles of hot dry sand and rocks. Mountains line the seacoast in some places. There is more dry, sandy land in Arabia than in the Navaho country. And there is much more land on which people and animals cannot live.

People of Arabia

The people of Arabia are known as *Arabs*. They belong to the white race,

but their skins have become tanned by the sun and the hot winds until they are as brown as Navaho Indians.

Because it is so hot in Arabia, the people wear clothing that will protect them from the sun. Long robes that reach almost to the feet are worn by men, women, and children. These robes are much cooler than tight-fitting clothing. A large piece of cloth is worn over the head and hanging down around the shoulders. The people either go barefoot or wear sandals made of soft leather.

Arabs of the Towns

Many of the Arabian people live in towns. Some of these towns are found along the edges of the desert and others are near springs or wells out on the desert.

Travelers on the hot, dry desert often come upon beautiful green spots where



Ewing Galloway

Some parts of the great Sahara desert are covered with shifting hills of sand, or dunes, that look almost like waves of the ocean. Sometimes strong winds blow the sand about furiously. During these sandstorms neither man nor beast can travel. They lie down, and the men cover themselves and wait for the storm to end. Parts of the Sahara look much like the Manygoats' region.

many plants are growing. The plants are watered by wells or springs. Irrigation ditches like those used by the Navaho Indians carry water to the fields and gardens. Such green spots on a desert are called *oases*. An oasis is like a green island with brown sand all around.

An oasis may be very small, or it may be several miles across. Towns are often

built near large oases. Because damp soil on which plants can grow is so scarce, every bit of it is used for the growing of gardens and fruit trees. The houses are built at the edge of the oasis so as not to waste valuable soil.

The houses in all the towns are much alike. They are built of sun-dried mud bricks or of stone. Because so little rain



In the oases, green palm trees grow thickly and furnish shady resting spots for the weary traveler. Only a little distance away there is nothing but hot, dry sandy wastes. The only difference between the two places is water, for water makes an oasis of a desert.

Ewing Galloway

In the hot desert, people wear long, loose clothing and keep their heads covered. These nomads have put up their tents near a town on the edge of an oasis. The city houses appear in the distance. Do you know what kind of trees these are?

falls the roofs are flat. The people can sit on them and enjoy the cool air of evening.

Most of the people of the towns are farmers or merchants. The farmers raise fruits, hay, and vegetables. The merchants trade with the desert Arabs who come to town to buy and sell.

People of the Tent

Many of the Arabs who are not merchants or farmers spend their time caring for their flocks and herds. They raise sheep and goats and camels, and some of them have horses and donkeys.

Like the Navahos, they must move from time to time in search of new



pastures. Because they wander from place to place, these Arabs are called *nomads*. The word "nomad" means *wanderer*. Nomads of the Arabian desert are called *Bedouins*, which is a word meaning "dwellers in the desert."

These wandering people live in a dry, hot land that looks a great deal like Joe Manygoats' region. They are desert nomads who live with their sheep, moving their tents wherever the sheep can find enough pasture to graze on.

Burton Holmes—Ewing Galloway



In many places there are hollow rocks which are filled with water when it rains. There are also wells where rain water collects. The Bedouins know where the water holes are, and they travel from one to another and from oasis to oasis.

The Bedouins call themselves "people of the tent." That is because they live in tents instead of houses. When they are ready to move, they take their tents down, roll them up, and pack them on the backs of camels. So, like the snail which carries its house on its back, the Bedouins take their homes with them wherever they go.

When the Bedouins go to a town to trade with the merchants, they carry goods with them to give in exchange for what they buy. They take goatskins and sheepskins, which the merchants are always glad to get. And they take cloth, which they have woven from wool or from camels' hair or goats' hair.

The merchants sell the Bedouins hay, coffee, pots for cooking, grain or flour, and dates. The dates grow in large clusters on the date palm tree. They are one of the most important foods of the Arabs.

Desert Animals

The Bedouin could not live without his herds and flocks. His sheep, goats, and camels give him food and clothing. The milk of these animals is used for drinking and for making cheese and butter. The flesh is good for food, and the sheep's wool and the hair of the goats and camels are used in weaving cloth and rugs.

Camels, horses, and donkeys are all used for riding over the hot sands of the desert, but long trips could not be made without the camel. Camels loaded with goods make trips across parts of the desert that could not be traveled in any other way. These camel *caravans*, as they are called, make regular trips between some of the towns.

Camels are suited to desert travel for a number of reasons. They can go for several days without water because they can drink enough at one time to satisfy them for a long while. They store up fat in their humps, too, and some of this fat takes the place of food on a long desert trip. They have wide hoofs that do not sink into the sand, and they can travel as many as twenty-five or thirty miles a day.



Water is found in so few places in the desert that the people must carry it with them. These children are waiting their turn to take a drink from the waterskin after their little brother has drunk his fill.

Erving Galloway

Camels are well fitted for life in the desert. Until lately men could not travel very far in the desert without them. Donkeys are useful desert animals too. They are hard workers and can live on a very small amount of food.

Ewing Galloway



Desert Life Throughout the World

There are many ways in which the lives of desert people are alike. To all of them, there is nothing more important than water. They must have drinking water for themselves and their animals, and they must have pastures for their flocks. They use the water from wells or springs to irrigate their fields.

All desert people depend upon animals for much of their food and clothing. Animals also furnish the material for their blankets and rugs. Bedouins even use cloth made of camels' hair or goats' hair for their tents. And animals furnish the most useful means of travel in deserts.

In all deserts there are nomads. The search for good pastures takes these people from place to place. Some of them move two or three times a year as the Navahos do, but some of them, like the Bedouins, move much oftener.

Things to Talk About

1. Tell all the ways you can in which the Arabian desert and the American desert are alike. In what ways are they different?

2. Who do you think have a more interesting life—the Arabs of the towns or the “people of the tents”? Why?
3. If you ate dinner with a Bedouin family, what would you probably eat? What would you have if you ate with the Manygoats’?
4. To what race of people do the Arabs belong? To what race does Joe belong?
5. How are the clothes of the Arabs different from those of the Manygoats family?
6. Tell what you might see if you were traveling across a desert and came to an oasis.

Things to Do

1. Make a chart like the one below on a sheet of paper. Fill in the spaces of your chart with things you have learned from the story.

	NAVAHOS	BEDOUINS
Kinds of Homes		
Useful Animals		
Important Foods		
Ways of Traveling		

2. On the map, page 123, find:
 - a) The largest desert. What is its name?
 - b) The desert that is on a peninsula. What is it called?
 - c) The desert on the smallest continent. What is the continent?
 - d) A long, narrow desert along a seacoast. On what continent is it?
3. Collect pictures of desert animals. Tell in what ways each one is useful.
4. Write a letter to Joe Manygoats and tell him things about the Arabian desert that would surprise him.
5. Make a long picture, or frieze, for your room that shows a camel caravan.

BOOKS TO ENJOY

ARMER. *The Trader's Children*. Longmans, Green & Co., New York.

The trader's children knew the Navaho Indians who sold wool and bought goods at their father's trading post. You will like this book if you are a good reader.

ATWOOD-THOMAS. *Home Life in Far-Away Lands*. Ginn & Co., Boston.

"Nomads of the Desert," pages 54-70.

BESTON. *The Sons of Kai: The Story the Indian Told*. The Macmillan Co., New York.

The story tells about some of the beliefs of the Navahos.

BRANDT. *The Colored Land*. Charles Scribner's Sons, New York.

Navaho children wrote the stories and poems and drew the pictures for this book.

BUFF and BUFF. *Dancing Cloud, The Navaho Boy*. Viking Press, New York.

Dancing Cloud and Lost Tooth help build their hogan, care for the sheep, weave, plant corn, and they also find time to play.

BUTLER. *Two Little Navahos Dip Their Sheep*. E. M. Hale & Co., Milwaukee.

This is an easy book that tells of a visit to a Navaho family.

CARPENTER. *Our Little Friends of the Arabian Desert*. American Book Co., New York.

In this book we visit for a year with Adi and Handa in their home on the Arabian desert.

CLARK. *The Navajo Bluebird*. The Viking Press, New York.

Doli didn't like it when her big brother went to the white man's school. She took part in everything that her Indian family did, then she wanted to go to school, too.

HARRINGTON. *Nah-le Ka-de (He Herds Sheep): The Story of a Navaho Boy*. E. P. Dutton & Co., New York.

This story tells of the homes, work, and play of a Navaho boy and his friends.

HOGNER. *Navaho Winter Nights*. Thomas Nelson & Sons, New York.

The medicine man tells what the Navahos believe about the beginning of the world and about many of the animals of the desert.

McCONNELL. *Living in Different Lands*. Rand McNally & Co., Chicago.

"Hot, Dry Lands: The Sahara," pages 68-89.

PATCH and FENTON. *Desert Neighbors*. The Macmillan Co., New York.

Stories of the kangaroo rat, horned toad, lizards, moths, and other animals. It also tells about desert plants.

RATZESBERGER. *Camel Bells; A Boy of Baghdad*. Albert Whitman & Co., Chicago.

Nazar, a poor boy of Baghdad, was hired as a shepherd by a Bedouin sheik.

SMITH. *World Folks*. John C. Winston Co., Philadelphia.

"The Hot, Dry Lands—The Sahara," pages 121-141.

SPERRY. *Little Eagle, A Navaho Boy*. John C. Winston Co., Philadelphia.

Little Eagle and his sister had many adventures; then Little Eagle's wish to go to a government school came true.

WELLS. *Ali, the Camel*. Doubleday, Doran & Co., Garden City, New York.

Ali, who belonged to a Bedouin boy, went to the city with a caravan. He got away from the others and went around by himself having many exciting adventures.

WILLIAMSON. *Humpy, Son of the Sands*. Doubleday, Doran & Co., Garden City, New York.

A very easy, interesting book about the adventures of Humpy, a baby camel.



4. *Prairie Farm Children*

THE school bus from Mill Town rumbled up the road, bringing the farm children home from school. It was nearly filled with happy, laughing boys and girls. Soon the bus began to slow down.

"Well, here's our corner," said Tommy Simpson to his sister Mary.

"Good-by, Tom and Mary," shouted the other children. "We'll see you tomorrow."

The cold February wind made Tommy and Mary turn up the collars of their warm coats as they stepped from the heated bus. They turned to wave to the others. The bus drove on up the paved state highway, but Tommy and Mary walked down a smooth dirt side road. In all directions the land stretched away flat and smooth. The region was a level

plain. Most of it was good farm land.

"Listen to the telephone wires hum," said Tommy, as they hurried along.

Nearly all the farm people in this region had telephones. Tom and Mary were glad they had a telephone. Their nearest neighbor lived half a mile away, and Mill Town was five miles away.

Waiting by the mailbox near the road was a brown-and-white collie. Sunny never failed to meet Tommy and Mary when they returned from school. He had a way of knowing just when four-thirty came. Today he leaped back and forth excitedly, and barked sharply as the children approached.

"What's the matter?" cried Mary.

"He must want to show us something," said Tommy. "Let's hurry."



Courtesy International Harvester

Tommy and Mary lived in a large farmhouse, surrounded by modern farm buildings, well-kept orchards, and level fields. Can you find the barn? The windmill? What is it for? Do you know the name of the tall, round building? See if you can name some of the other buildings.

Baby Chicks

The collie ran up to the children's mother, Mrs. Simpson. She was carrying several flat cardboard boxes toward a little round house where the Simpsons kept their tiny chicks. It was a *brooder house*.

"Oh, I know," cried Mary, "the baby chicks have come. I see the boxes they came in."

The children left their lunch boxes beside the screened porch and ran to their mother. As they drew near they could hear the "peep, peep" of many little chicks. The chicks were inside the cardboard boxes that Mrs. Simpson was carrying. Each box had many tiny holes to let in air for the chicks to breathe.

The boxes had been shipped from the *hatchery* in Mill Town. Each year this hatchery placed thousands of eggs in heated boxes called *incubators*. As the eggs hatched out, the baby chicks were placed in cardboard boxes and shipped to farmers all over the country. Some were even shipped far away by airplane.

"May we help?" asked both children.

"Run in the house and get the other boxes. Hurry, so the chicks won't get

cold." Then Mrs. Simpson disappeared through the door of the brooder house.

When the children reached the brooder house with the rest of the boxes, Mrs. Simpson had already opened those which she had carried.

"Step in quickly," Mrs. Simpson called. "We mustn't let in too much cold air. The chicks might be chilled, and then they would die." She closed the door quietly after the children.

"Oh!" cried Mary as she opened her boxes. "Aren't they cute? They look just like little balls of fluff!"

The downy yellow chicks were soon eating from long metal trays. These trays contained just the right kinds of food to keep the chicks healthy while they were very young. Some of the chicks were drinking water from shallow pans.

"How many are there?" asked Mary.

"Just three hundred, and they are only two or three days old. Taking care of them will keep us busy. On Saturdays you can help clean the brooder house and put fresh wheat straw on the floor. We'll need to keep the water holders and feed trays very clean, too. This will keep dis-



Photos: J. C. Allen & Son and Cy LaTour

Eggs from healthy hens are placed in incubators at the hatchery and kept at a warm temperature for three weeks. At the end of that time, the baby chicks peck their way out of the shells. At once they start peeping and looking for food.

ease germs away from the baby chicks."

An oilstove in the center of the brooder house gave a steady heat and kept the little chicks warm. They peeped contentedly.

"These tiny things will not be old enough to start laying eggs for a long time," remarked Tommy to his mother.

"No, not until about six months from now. But time passes swiftly when there



are so many things to do. Easter is only ten weeks away. Some of these chicks will weigh nearly two pounds then, and we can have fried spring chicken for our Easter dinner."

"Yum, yum," said Tommy, as Mrs. Simpson led them out of the brooder house. "We'll help take good care of them, won't we, Mary?"

As they started for the house Mrs.

When the chicks are only one day old, they are placed in boxes and sent by parcel post to farmers. As soon as they arrive, the chicks are taken from the boxes and put in a brooder house. A stove keeps them warm, and there are trays of food and containers of water. When they are a little older the chicks can go outdoors and enjoy the sunshine.

Photos: J. C. Allen & Son and Samuel D. Mysliss



Simpson said: "Father will do the *chores* soon. We must start supper. Will you get some canned tomatoes from the *fruit cellar*, Tommy?"

Tommy in the Fruit Cellar

Tommy walked down the cement steps into the basement. At one end of this basement was a closed-off room in which the Simpsons stored their food. Its walls, ceiling, and floor were all built of cement. This made the cellar strong and easy to keep clean. The temperature so far under the ground remained cool and even all the year round. This protected the vegetables and canned goods stored here from both the cold of winter and the heat of summer.

When Tommy turned on the electric light in the cellar, the glass jars of canned food on the wooden shelves around the walls looked like long rows of soldiers. Each jar had a name pasted on it to tell what it contained. There were jars of canned pork, beef, and chicken; of tomatoes, green beans, pickles, asparagus, and spinach; of peaches, apricots, plums, and pears; and glasses of jelly and jam.

Most farmers grow and can a great deal of their own food. By the end of summer, their fruit cellars are well stocked with good things to eat. How many different kinds of food can you see here?

Courtesy Marion Post Wolcott—F. S. A.



J. C. Allen & Son

Farm people get their mail by rural delivery. Every weekday the postman drives by in a car and puts each family's mail in a box by the roadside. Would you enjoy riding a pony like this?

It made Tommy's mouth water just to look at all this good food.

Things to Talk About

1. What is the land like near Tom's and Mary's home? How is it different from the region in which Joe lives? How is it different from José's country? From Pimwe's land?
2. Do you know of any way in which eggs are hatched besides in an incubator? If you have seen baby chicks come from the shells, tell about it. How long must the eggs be kept warm before the chicks hatch?
3. Why must baby chicks be so well cared for? How do they change in appearance in a few weeks?
4. What is the difference between a brooder house and a hatchery?
5. What vegetables do you think the Simpsons had stored in their cellar besides those that were in glass jars?
6. Where did the Simpsons get their mail?

Things to Do

1. Start a scrapbook of pictures of farm animals. See how many kinds of chickens, horses, cows, and hogs you can find in pictures.
2. Remove the labels from some cans of fruit or vegetables which have been bought at the store. Paste them on a chart, or pin them on your bulletin board.
3. Choose pupils to read what Tommy, Mary, and Mrs. Simpson said in this part of the story. Read only the sentences that are in quotation marks. Make the reading sound the way you think they talked.
4. Look for the words *windmill* and *rural delivery* in the glossary. Tell what you know about either.

WORK AND PLAY IN WINTER

After Tommy carried the canned tomatoes indoors, he saw Fred, the hired man, with a team of horses hitched to a wagon. He was hauling corn to the cattle in the *feed lot*. The feed lot was a large outdoor pen with a high board fence around it.

"Hello, Tommy," called Fred. "Will you haul the empty milk cans to the barn in your coaster wagon? I'll soon be ready to milk."

Caring for the Farm Animals

Tommy hauled the cans to the barn. Then he hurried to the back end of the barn and opened the door to one of the dark stalls.

"Hello there, Red Boy," he called.

Something in the darkness stirred about and said, "Maa-a-a." It was a

small red calf with a large white patch on its face. He came right up to Tommy and pushed his cool pink nose into his hand.

"It will soon be suppertime for you," said Tommy. "Then I'll bring you some nice warm milk."

"Maa-a-a," answered Red Boy.

Red Boy was the calf Tommy was raising in his *4-H club* work. Throughout this and other farm communities of the United States, the *government* has organized 4-H clubs for boys and girls. This gives them many useful things to do. The four H's stand for Head, Heart, Hands, and Health.

Some of the 4-H clubs take up sewing and canning. Others are calf-raising or pig-raising clubs. There are many other

Farm boys get much fun from helping to care for calves and other animals on the farm. This calf has been taught to lead, and has learned that the boy is his friend. Its owner hopes it will win a prize at the state fair when it is a few months older.

J. W. McManigal—Gendreau





Cattle that are being fattened are kept in a feed lot, an outdoor pen with a fence around it. In this pen are wooden feed troughs. When it is time to feed these cattle, the farmer fills the troughs with corn, oats, alfalfa, and other feeds.

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kinds, too. In late summer, the boys and girls show what they have raised or made at county and state fairs. Those who have done the best work are given prizes. Tommy hoped that Red Boy would grow to be a large, well-shaped calf so that he could win a prize at the fair.

"Well, good-by, Red Boy," said Tommy as he patted the calf's head, "I'll see you later."

Tommy went to watch Fred throw corn into the long wooden feed *trough* that stood in the feed lot. Fred drove close to each trough with the wagon. The stout red cattle crowded near. They were eager for their supper.

They had grown up on large ranches on the great grassy plains of the western part of the United States. From there they had been shipped to Omaha, Nebraska. Here the cattle that were fat and ready for butchering were killed, cleaned, and cut up. The meat was later

sold to people all over the country. But some of the cattle were not fat enough to butcher. These were sold to near-by farmers, who fattened them.

Mr. Simpson had bought some of these cattle. All during the winter he fed them corn raised on his own farm. Besides corn, Mr. Simpson fed his cattle chopped-up cornstalks, oats, and other kinds of feed.

Not far away Mr. Simpson was feeding ears of corn to the hogs. He threw the corn on a wide cement floor where it would not get dirty or be wasted. The corn made a crunching noise as the white and black "porkers" ground it between their powerful jaws. Last fall these hogs had been born in the little houses that stood out in the hog pasture. These small houses were shaped like the letter A.

From tiny squealing pigs these animals had grown into hogs that weighed about 135 pounds. In the spring they would weigh more than 200 pounds and would be ready for market.

Mr. Simpson came over to the feed lot. He and Tommy climbed into the wagon with Fred and drove to the barn.

"I'll unhitch the horses and feed them while you and Tommy do the milking," said Mr. Simpson.

The inside of the barn was warm and smelled of sweet hay. The five black-



Corn is good feed for hogs. Corn-fed pigs get fat quickly. Farmers want their stock to take on weight fast so they will not cost too much to fatten.

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In this clean, airy barn the milk cows stand with their necks in metal stanchions. Each cow has her own water fountain.

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and-white cows were in the west end of the barn. They stood with their heads through the *stanchions*, munching the ground oats, barley, and corn which Mr. Simpson had put in their feedboxes. The stanchions kept the cows in their places while they were being milked. Each cow gave from five to six gallons of milk every day.

"You can milk Jenny tonight," said Fred to Tommy, as he turned on the electric light. "Her milk will almost fill your bucket."

Jenny was gentle and easy to milk. But by the time Tommy had finished, Fred was nearly through with all the other cows.

"My, but you milk fast," said Tommy.

Fred grinned and held out his big brown hands. "My fingers are strong," he said. "Farmwork gives one strength."

Just then Mrs. Simpson opened the barn door. She wore a big brown shawl



about her shoulders and looked serious.

"The radio tells us to look for a storm," she said. "It will strike here sometime late tonight."

"Let it blow," said Fred, hanging up his milking stool. "We're all set for it."

"The radio warned all farmers to bring in their livestock," Mrs. Simpson added. "The temperature is supposed to drop to 10° below zero."

"Maybe we won't have school tomorrow," said Tommy.

"Probably not, if there's a blizzard," said Mr. Simpson, who had come along to help carry the milk to the house.

The milk was taken to the milk room in the basement of the house. Here the Simpsons had a machine called a *separator*. Fred turned on the separator and poured the milk into a large bowl at the top of it. The machine then separated the cream from the rest of the milk. The

Young farm boys soon learn how to milk cows. It does not take a good milker very long to fill a big pail with milk.

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Courtesy Lee—F. S. A.

This machine separates cream from milk. The cream then flows into the tall pail at the left, while the skim milk flows into the other pail. Mr. Simpson's separator is run by electricity.

cream flowed out through a small spout and was caught in a tall pail. Through another spout the skim milk flowed into another tall pail.

All the cream except that which Mrs. Simpson used for the table or churned into butter would be sold in town. The skim milk was fed to the hogs. Some farmers who lived near city dairies sold their milk without separating it. A truck from the city came for it every day.

A Winter Evening at Home

The rest of the chores were quickly done, and the family gathered around the supper table. Tommy and Mary, their faces spotlessly clean, bowed their heads with the others as Mr. Simpson asked the blessing. On the table, with its blue-

checkered cloth, were steaming dishes of potatoes, hot meat, and vegetables.

After supper, while Mary and Mrs. Simpson washed the dishes and straightened up the kitchen, Mr. Simpson and Fred went to the large living room and settled in easy chairs to read the daily paper. Of course, Tommy had to be with them to read the "funnies."

The long winter evening passed quickly. Mrs. Simpson played a few pieces on the piano, and Tommy and Mary sang "Home on the Range."

"I think you deserve a treat for such a nice song," said Fred. And he fired up the cookstove and popped a big dish of popcorn. Then he brought up some juicy red apples from the fruit cellar.

"No sign of the storm yet," he said.

When the popcorn and the apples were gone, Mary and Tommy played some guessing games. Then they prepared for bed. Mrs. Simpson tucked them in after she heard their prayers. Down in the basement, they heard Mr. Simpson banking the fire in the furnace.

The Blizzard

It was not long until the lights in the Simpson home blinked out. Mr. Simpson had gone out once more to see that all the barn doors were closed, and that the animals were all right. He also looked at the brooder stove to see that it had enough oil, and that the temperature was right for the chicks.

The storm struck shortly after midnight. A cold wind whipped out of the north across the level *prairie*. There were no mountains or hills to stop the wind. The snow swirled in great *flurries* in the darkness of the night. It spattered against the windows of the house and be-

Sometimes during a storm, snowbanks become so deep that snowplows must be used to clear the railways and roads.

gan to pile up in drifts around the porch. It tried to get in through the windows, but they were too tight. Sunny opened his sleepy eyes and looked out of the little door of his house, but he was warm on his straw-covered floor.

The evergreen trees back of the Simpson home tossed and bowed in the wind. They helped to protect the house from the full force of the cold wind. Grandpa Simpson, who now lived in town, had planted them many years ago to make a *windbreak* for the house.

Next morning the sky was gray with clouds, but the snow had almost stopped falling. Great white drifts were piled in the yard, and the air was bitter cold.

Fred and Mr. Simpson were up early to shovel paths to the barnyard and do the chores. They started the heater in the tank where the livestock drank. Soon the ice began to thaw.

When they came in, Mrs. Simpson had breakfast ready — pancakes, sirup, and pork sausage. How they did eat!

“Do you think we’ll have school today?” asked Tommy.

“Oh, yes,” said Mr. Simpson. “The telephone operator called to say that there would be school. The snowplows will soon have the highways open. It may snow a little all day, but I don’t think the storm will get any worse.”

He helped himself to some more pancakes and went on. “You children are

In many parts of our country, children travel many miles to attend school. The school bus picks up the children in the morning, and in the afternoon it takes them home. Do you go to school in a bus?

Courtesy Bureau of Public Roads



lucky. When I was a little boy here on this farm, I had to walk two miles to the old country school. But all you have to do is walk to the highway and get into a warm bus.”

Things to Talk About

1. What kinds of work does a hired man do on a farm?
2. How would you like Tommy’s pet? How do you suppose he got his name?
3. What do the four H’s of 4-H club stand for? If you are a member, tell what you do. If you are not a member, tell what you would like to do.
4. What animals have you fed? What did you feed them? How often did you feed them?
5. Where did Mr. Simpson get his cattle? Why were they not kept in Omaha?
6. What did the Simpsons do with their milk?
7. In how many ways that you know of are radios useful to farmers?



8. What kinds of extra work does a blizzard make on a farm and in the country?

Things to Do

1. Ask someone who knows a great deal about the work of the 4-H club to talk to your class about it.
2. Look in newspapers and magazines for pic-

tures and stories about members of 4-H clubs and things they have done.

3. Collect samples of the different kinds of grains that are used for feed.
4. Make a list of all the uses you know for milk and cream. Get some cream and churn some butter or make some cheese.

SPRING ON THE FARM

Spring came at last. The March snow melted and trickled away, and the days grew steadily longer. Fred did the evening milking by daylight now. Each day more and more robins came back. Soon the bluebirds, flickers, and sweet-singing meadowlarks would follow to build their nests. They would be of great help to the farmer by destroying many harmful insects and worms.

The trees were beginning to show thousands of buds, and from the roadside the alfalfa fields looked like broad green rugs spread over the earth. The wheat that had snuggled so close to the ground under the protecting snow of winter, now began to lift slender blades to the warming sun.

Planting Potatoes

As Tommy and Mary returned from school one afternoon, they found Mr. and Mrs. Simpson on the back porch cutting potatoes for seed.

"Oh, I know what you're doing," said Tommy. "And I know how to do it, too. I learned how in school."

"All right," said Mr. Simpson. "You may take my place if you know how."

Tommy took the knife and cut a potato into three pieces.

"There you are," he said.

"Very good, Tommy."

Tommy had cut each piece so that it had at least two *eyes* left in it. Potato

eyes are tiny buds. The inside of the potato supplies the buds with food when they are beginning to grow. Later on the plant will have roots and leaves to provide it with food and moisture.

"When are we going to plant these?" asked Mary, looking at the big sacks of seed which had been cut.

"Tomorrow afternoon," replied Mrs. Simpson. "The frost is out of the ground now, and the weather is growing warmer."

"May Tommy and I help plant when we get home from school?"

"There won't be much for you to do," said Mrs. Simpson. "We won't plant by hand this year since Daddy bought the potato planter. It digs the *furrows*, plants the seed potatoes, and covers them—all at the same time."

Work in the Garden

"But I'll tell you what you can do," continued Mrs. Simpson. "You can help me put in the early garden. We'll plant all the vegetables that can stand cool spring weather, like radishes, onions, lettuce, and peas."

"Oh, that will be fun!" cried Mary. "Tommy and I will make the rows for you with the little garden plow."

And so they did. The next afternoon found them in the garden with the rake, the hand plow, and brightly colored packages of seed. Last summer this had been the yard for the young chickens. In the

Many farmers use horses to pull the plow. The sharp-edged wheel, or colter, cuts into the ground; and the blade, or share, of the plow turns the soil over. Following a horse-drawn plow all day is hard work. This is the first step in preparing the soil for planting.

Courtesy J. I. Case Company



fall, the chickens had been moved to a new yard, leaving the old ground richly *fertilized*.

Last fall the new garden plot had been plowed. The *plow* had a sharp steel blade that cut through the ground and turned the soil over. Two horses pulled the plow, while Fred walked behind and guided it.

This morning Fred had gone over the garden with a *harrow*. The harrow looked something like a huge rake and was pulled by two horses. Its sharp iron teeth broke up the clods and loosened the soil. Now the ground was soft and crumbly and easy to plant.

Tommy and Mary made some long furrows down the whole length of the garden with their little hand plow. In

these the peas were planted. Then they made other furrows, more shallow than the first, in which to plant carrots and beets. Short shallow furrows were also made for lettuce and radishes.

Learning about Corn

"Mother, will Fred plant the corn after he gets through planting the potatoes?"

"No, not right away. The corn will be planted early in May. That is about the time all farmers in this part of the country plant their corn. Fred will have to start getting the ground ready as soon as he can. There is much work to do in preparing the soil for planting. The ground we turned over with the plow last fall is full of clods. It needs to be cut up with the *disk*."

This field was plowed last fall. Now it is spring, and the farmer is going over it with a disk. This breaks up the crust that has formed during the winter. The farmer is using two 3-horse teams to pull the disk harrow.

Courtesy J. I. Case Company



"I heard Fred say that we plant *hybrid corn*," said Tommy. "What did he mean by that?"

"Oh, that's a new kind of corn. We have had it only a few years. It's much better than the kind we used to raise. It stands dry weather well and yields an average of twenty-two more bushels per acre. The ear has a smaller cob but more corn on it. Hybrid corn ripens earlier, too, so there is less danger of frost killing it. There are many farms that grow only hybrid corn for seed. Other farmers buy their seed corn from these farms."

"Why do we raise so much corn around here? All of our neighbors plant nearly half their farms with corn," said Tommy.

"Because the soil and weather in this region are just right for growing corn. Much of the central part of the United States is level or gently rolling land. This makes it easy for the farmer to plant and care for large fields of corn. Our land is also rich in the food the corn plant needs. This part of the United States grows so much corn that it is called the *corn belt*."

"We have rain and warm sunshine in late June, July, and August, just at the time when the corn grows best and the ears of corn are filling out with kernels. Corn needs plenty of moisture then."

"Another crop that farmers around here are growing more and more every year is *soybeans*. The whole plant makes fine hay if it is cut while still green. The beans that are allowed to ripen have many uses and bring a very good price. Soybeans also make the ground richer in plant food. Better corn and oat crops will grow the following year in the fields that have been used for soybeans."

Just then Mr. Simpson drove into the yard in the family car. He looked as though he had something important to say as he came walking out to the garden.

"Well, I'm going to ship the cattle Monday," he said. "Jerry and Pat Smith are coming with their big trucks and we're going to load before daybreak. The cattle will get into Chicago sometime Tuesday. I shall go to Chicago on the night train Monday."

Shopping in Mill Town

The next day was Saturday, and the Simpson family did chores early in the evening because they had trading to do in town. They had several crates of eggs and some cans of cream to sell. They would use the money they received for them to buy things which they needed at home.

The sun was going down like a great red ball of fire when they drove out of the yard headed for Mill Town. The car



This is the kind of truck Mr. Simpson used to send his cattle to the railroad station. There the cattle were loaded on cars and shipped to the stockyards. Sometimes the livestock is shipped by truck all the way to the city markets.

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During the spring laying season, hens usually lay one egg each day. Eggs are gathered from the nests twice a day. Many farmers earn a good income selling eggs and chickens.

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was loaded with cream and eggs, and Mrs. Simpson held a large jar of butter in her lap. This was for Grandpa and Grandma Simpson who lived in Mill Town.

Grandpa Simpson was on the porch when they drove up. "By jinks! I was expecting you," he said, pulling at his short, gray beard. "How are you, Tommy and Mary? How's that calf doin', Tom? Going to win a blue ribbon with him at the fair?"

"Will you be in town for long?" asked Grandma Simpson as she opened the door. "We'll have some cake and ice cream if you stop in for a while before you go home."

Mr. and Mrs. Simpson said they would stop. Then they drove to the stores. They sold the eggs and cream at the farmers' poultry and dairy market. Then they started out to do their shopping.

There were many stores in Mill Town—grocery stores, clothing stores, hardware stores, shoe shops, hat shops, and many others. They were all brightly lighted. Here the farmers bought the things they needed.

"Where do stores get all the things they have to sell?" Mary asked her mother, looking at the windows.

"Oh, most of them come from factories in big cities like Chicago and New York. The farmer sells wheat, corn, cattle, and hogs for food to the people in cities. Then the farmer uses the money he gets for his farm products to buy the things which city workers make. Farmers and



city people could not get along very well without each other. The people in the city depend upon the farmer for food. The farmer depends on city workers for machinery, clothes, automobiles, radios, books, and many other necessary articles."

It was nine-thirty by the big clock high in the courthouse tower as the Simpson family came out of a clothing store. Mr. Simpson had just bought a new suit and shirt, a pair of shoes, and a necktie to wear to Chicago. "Well, let's go up to Grandpa's and visit for a while," he said.

Things to Talk About

1. What signs of spring can be seen on the farm in March? Are they the same as the signs of spring that José noticed in his Central American home?
2. How many things will a potato planter do at one time? If you have ever seen a potato planter work, tell about it.
3. How was the garden plot prepared for the planting of seeds? Tell about any garden that you have made.

4. Why is hybrid corn better than the kind the Simpsons used to raise?
5. Why is this part of the United States called "the corn belt"?
6. Why do city people and country people need each other?

Things to Do

1. Look for the word *corn* in the index. Find

all the pages on which you have read about corn. Read again about the different ways it is planted, cared for, and used.

2. Make a list of the uses of soybeans. Try to learn some new uses.
3. Find the words *share*, *colter*, and *laying season* in the sentences describing the pictures; then look for them in the glossary.

GRANDPA'S STORY OF EARLY DAYS

It was snug and comfortable at Grandpa Simpson's home. Grandpa sat on the soft couch in his carpet slippers, and Tommy and Mary sat close to him, enjoying their ice cream.

"Jingoes!" Grandpa exclaimed. "I wonder if the Indians thought of making ice cream. I don't suppose so. I guess they didn't have sugar until the white men brought it."

"What was this prairie region like before the white men came?" asked Tommy.

Grandpa sat back comfortably on the couch, put his feet on a foot stool, and stroked his beard. He loved to talk about the long, long ago.

Story of the Prairies

"Well, sir," he began, "this prairie country was here long before I was. It was all just a great, wide, rolling plain, with prairie grass waving in the wind. There were not so many trees as now, except along the creeks and rivers. And these streams were full of fish. Big herds of buffalo and deer roamed over the land, and prairie chickens, wild turkeys, and geese were plentiful. There were many fierce animals, too—bears, panthers, and wolves."

Indians on the Prairies

"In those days, there were no white men in this half of the world. The only

people living here were the Indians, and they wandered over the plains hunting and fishing.

"A few of the Indian tribes were a little more settled than others; they stayed in one place long enough to do a little farming. The Indian women raised beans, squashes, melons, and corn, and the men just hunted and fished. These Indians had their camps near the rivers and lakes."

The First White Settlers

"The first white men came to this prairie land about 250 years ago. They were *Frenchmen* from Canada who came to explore the country.

"The French were great trappers, and they were pleased that so many fur-bearing animals lived here. They traded with the Indians for furs, too. The first important business that the white men carried on in these prairie lands was the fur-trading business.

"Well, sir, the fur traders did not have the country all to themselves forever. Later on farmers began moving out this way looking for new lands. When word of the rich soil reached the people back East, more and more of them came here and took up farms.

"Life was very hard for them at first. The grass was matted so thickly that many plows were broken trying to turn

the sod. Sometimes the Indians attacked them, and burned their homes. Many a *pioneer* and his family were killed and scalped by the Indians.

"But as the years went by, the white men gradually won the land away from the Indians. More and more of the prairie grass was plowed under to make fields for corn, wheat, and other grains. Towns and railroads began to spring up, and many people came out west."

"When did you come here to live?" asked Tommy, his face eager with interest.

Grandpa's Own Story

"Well, it was about 1880 that I left New England and came to this state, and Grandma Simpson came with me. We'd just been married, and we were looking for a likely spot to settle on and farm.

"When we got here, we found farms all around. Right on the very spot where you are living today, a man had been

living for nearly ten years. His house was made of logs. He had filled up the spaces between the logs with clay. This log cabin had only one room. It had a dirt floor, and a large fireplace on one side of the room. We liked it so well that we bought it."

"But where's the old log house now?" asked Mary.

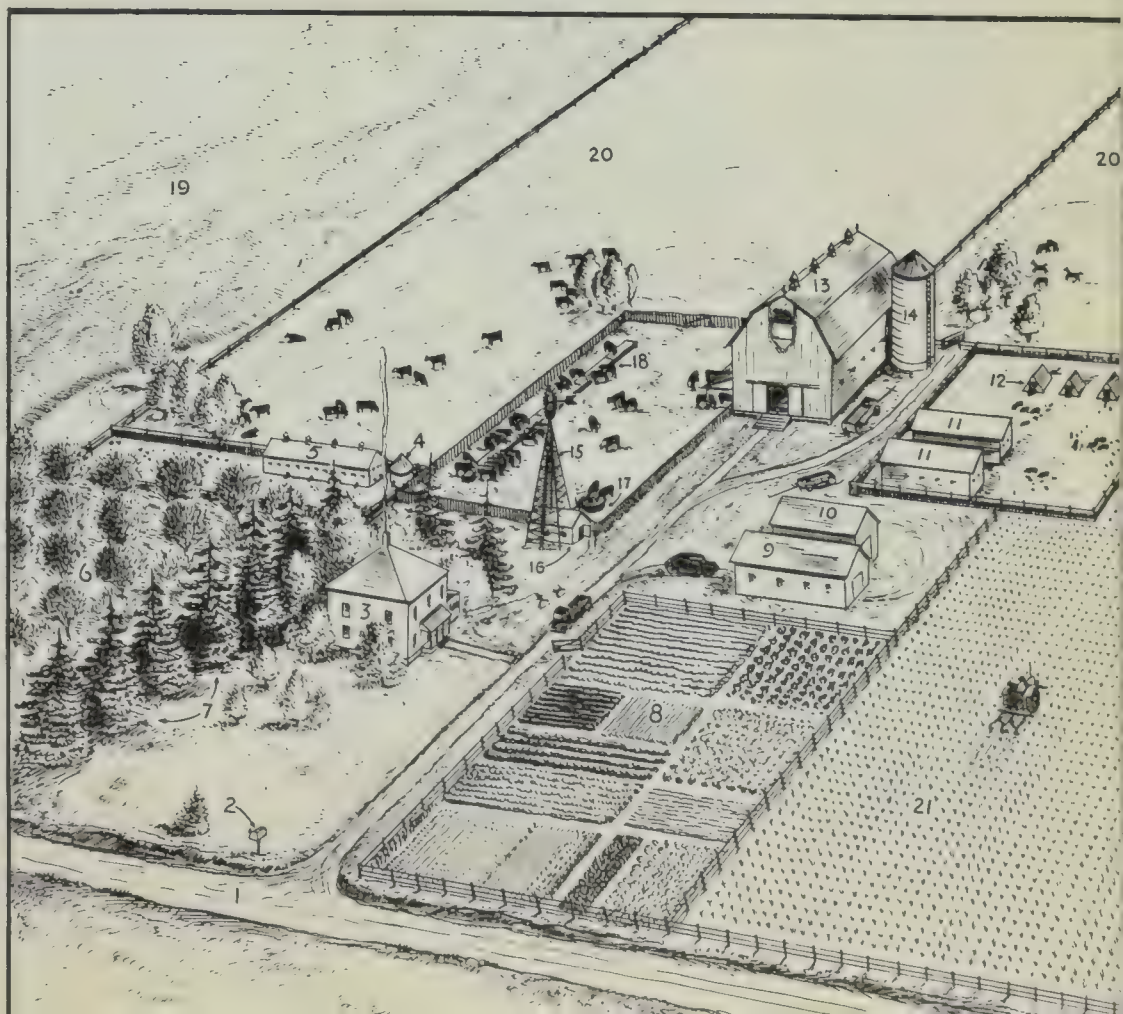
Grandpa Simpson laughed. "Why, we lived in that little log cabin for about fifteen years. Then we felt rich enough to tear it down and build a regular house. When we moved to town about twelve years ago, we tore this second house down and built the house you are living in now. That house was for your daddy when he got married. I made a wedding present of it for him and your mother."

"Come, everyone," called Mr. Simpson, as Grandpa stopped talking. "We must start home as I have work to do before I leave for Chicago."

The Simpson Farm

KEY TO THE NUMBERS

1. Dirt Road
2. Mailbox
3. House
4. Brooder house
5. Chicken house
6. Orchard
7. Evergreen windbreak
8. Vegetable garden
9. Machine shed and garage
10. Corncrib
11. Hoghouses
12. A-shaped houses
13. Barn
14. Silo
15. Windmill
16. Milkhouse
17. Water tank
18. Feed troughs
19. Wheat field
20. Pastures
21. Cornfield



VISITING THE GREAT CITY

Several evenings later Mr. Simpson arrived home from Chicago with his arms full of packages. He brought gifts for everyone as souvenirs from the big city.

After the presents had been opened and Mr. Simpson had eaten his supper, the family gathered in the living room to hear him tell about his trip. First he told about the *Union Stock Yards*, where his cattle had been kept in pens until he had found a buyer for them.

Union Stock Yards

"You can't imagine how huge the place really is," he said. "I thought the stock pens had no end. There are more than 200 acres of them. And most of

them were filled with bellowing cattle, bleating sheep, and squealing hogs. If all the pens were filled, they would hold about 300,000 animals. By train and truck, livestock keeps arriving at all hours of the day and night.

"Usually the animals are kept in the pens only long enough to rest. Then they are bought by buyers from the *packing houses* and taken away to be slaughtered. The buyer who bought my cattle told me that Chicago packing houses handle around 70,000 head of livestock a day."

"No wonder Chicago is called the greatest *meat-packing center* in the world!" exclaimed Tommy.

When cattle are unloaded from cars and trucks they are put in pens at the stockyards. Buyers from the packing houses ride between the pens on horseback, selecting the cattle they want to buy. Later the cattle are driven along runways to the packing houses where they are to be slaughtered. Sheep, hogs, and other smaller animals are kept at the stockyards in sheds instead of in outdoor pens.

Photo by Abernathy





Base map from Goode Series by permission of the University of Chicago Press

Find the Simpson farm on this map of the United States. The circle with the cross tells you that Des Moines is a state capital. What direction is the Simpson home from the Manygoats camp? In what direction from Chicago is your home? Use the scale of miles and see if you can tell how far Mr. Simpson traveled when he went to Chicago.

A Crossroads City

Mr. Simpson nodded and continued his story. "Nearly everything about Chicago is great. It is the second largest city in the United States and the chief market for everything we produce. And to think that a little more than 100 years ago it was only a small Indian village! Little did the Indians dream that their village would some day turn into a great city of more than 3,000,000 inhabitants.

"If you look at a map of the United States, you will see that Lake Michigan points like a giant's finger into the United States. The many people who travel back and forth between the large cities in the East and the farming states in the West must go around the southern tip of Lake Michigan. This takes them through Chicago.

"Many of the products from the different parts of our country also pass through Chicago. Sometimes we say that Chicago stands at the crossroads of our country. This is because the many people and products that go from east to west and from north to south cross paths at this point."

World's Greatest Railway Center

"Chicago is the greatest railway center in the world. Forty railroads meet here. There are several reasons for this. When people found that much coal, iron, copper, oil, timber, and limestone could be obtained within several hundred miles of Chicago, they built railroads to haul these products to the city. From them the workers in the city make such articles as furniture, farm implements, clothing, and books.



Chicago has many large freight yards filled with miles and miles of tracks and many thousands of freight cars. In these yards cars are switched to other lines, repairs are made, and freight trains are put together.

Kaufmann & Fabry Company

"Many railroads are needed to haul these goods to the small towns in the United States. The small-town people and farmers can then buy the products which the city people have made.

"These railways also haul the products of the farm to the people in the city. The people in Chicago need the railroads

to bring them wheat, corn, meat, and milk for food. Chicago lies in the center of one of the largest and most fertile farming regions in the world. Many foods from this region are sent to other parts of the United States and to other countries. Meat from the cattle I sold in Chicago may go to Europe."

Dealers come to the Chicago Produce Terminal to buy the fruits and vegetables shipped in from all over the country. Some dealers sell what they buy to housewives who visit their stores; others buy for resale to stores. Others travel regular routes, selling fruits and vegetables from their trucks.

Courtesy Illinois Central System





Kaufmann & Fabry Company

Chicago's beautiful sky line is seen across Grant Park. These tall skyscrapers are offices, stores, and hotels. The white shell-like building is the Grant Park band shell. Here free, open-air concerts are given in the summertime. All Grant Park is "made" land, formed by filling in the lake for more than half a mile out from the old shore line.

Skyscrapers and Parks

"If you ever visit Chicago, you will be surprised at the great size of many of the buildings. One of the stores is a block square. Other buildings, called *skyscrapers*, are very high. These buildings are built high so that there will be room for many people to work in them. They take up less space on the ground than wide-spreading low buildings do.

"The main business sections of some cities are spread out over several square miles. But this section of Chicago is crowded into a space no larger than an Iowa farm.

"Chicago has many beautiful parks. Many of these parks are found along the lake. City people cannot go to the country every time they want to get out into the open. Instead they go to the parks in the city. These parks have play-

grounds for children. They also have swimming pools, golf courses, tennis courts, and museums."

Flying over the Corn Belt

"The best part of my trip was the return home," Mr. Simpson continued. "My cattle brought such a good price that I decided to come by airplane instead of by train."

"Oh!" gasped everyone at the same time. "That must have been wonderful!"

"Wonderful is right," replied Mr. Simpson. "From the air I could really get a good view of the corn belt.

"Flying rather low, as we did, I could see almost everything quite plainly. Just on the outside of Chicago we flew over a number of large dairy and poultry farms. I could see many fine-looking herds of milk cows and great flocks of chickens."

"Did you fly over any mountains?" asked Tommy.

"Oh, no. There are no mountains between here and Chicago. The ground looks almost as level as a card table. There are a few small low-lying hills here and there, but you could pump your bicycle up any of them, Tommy.

"The fields are laid out so evenly that one could easily believe they had been marked off with a ruler. In many of them I could see farmers plowing with *tractors*, getting the ground ready for corn planting. These fields looked dark, but the fields of growing wheat, oats, barley, and alfalfa were beautiful shades of green."

Mr. Simpson paused a moment and then went on with his story. "I could

hardly believe that at one time this land was just a grassy plain, or prairie, with only a few trees and no houses. Now it is a rich farming region, thickly settled with people and dotted everywhere with full-grown trees."

"What did the farmhouses look like from the air?" asked Mary.

"Almost like dollhouses. The buildings are brightly painted. The feed lots are well fenced, and every farmer raises cattle and hogs. I could see them in the lots, and they looked just like toy animals down there.

"But that is enough about my trip. The big city is all right, and riding in airplanes is fun. But there's no place like home for me."

This is an air view of one of the rich farming regions not far from Chicago. When one flies over a farming area, the houses and barns look very tiny, and the wide fields look like small well-kept lawns. Notice the straight lines of the fields in which the different crops are planted.

Courtesy American Airlines



Things to Talk About

1. What kinds of animals were found on the prairies in the early days? In what ways were they useful? How many of them have you seen?
2. Who were the first white men in this region? From what country did they come? Why did they come?
3. What made farming hard for the pioneers in this region?
4. What kind of house did Grandma and Grandpa Simpson first have on the farm? Have you ever seen this kind?
5. Tell what you think are the most interesting facts about the Union Stock Yards.
6. Why do we say that Chicago stands at the crossroads of our country?
7. Give all the reasons you can for Chicago's becoming the world's greatest railway center.
8. Pretend to be Mr. Simpson and tell the story of the trip home in the airplane.

Things to Do

1. Try to find people who can tell about the early days in the region where you live. Invite them to visit your class and give a talk.
2. Find *runways*, *produce terminal*, *slaughter*, and *band shell* in the glossary. Use them in sentences.
3. Find a book to read, page 170.

SUMMER ON THE FARM

School was out, and the summer vacation had begun. Tommy hoped that when his work on the farm was done, he would have time for fishing and swimming and picnics and all the fun that is a part of summer in the country.

Signs of Summer

The sun's warmth made the corn grow and ripened the wheat. The meadowlarks fluttered above their nests in the thick meadow grass, and the wild roses bloomed on the hillsides.

Out in the bluegrass pastures where the milk cows grazed, gophers whistled and scurried about, and small field owls sat quietly on the dry mounds of the burrows in which they lived.

In the Simpson orchard, the bees were buzzing about the hives which Mr. Simpson had made for them. They flew to and from the clover fields gathering nectar from the flowers. They took this nectar to their hives and made honey of it. In the fall, their hives would be filled with delicious honey. Mr. Simpson would then gather it and bring it to the house.

Mrs. Simpson would put much of it up in jars and store it in the fruit cellar for use during the winter.

Many farmers keep bees and earn a few extra dollars selling honey. To keep bees one must first learn about their habits and how to handle them.

Courtesy Resettlement Administration—Rothstein



Corn and Watermelons

The corn needed no more cultivation now. The farmers had stirred the ground around the corn three or four times with a machine called a *cultivator*. This machine had sharp-pointed iron shovels to loosen the ground and thus help to keep moisture in it. It also destroyed the weeds. The cultivator was pulled by a gasoline tractor.

In the very heart of one of the Simpson cornfields was a square open patch. Here grew the watermelons, green and plump among their leafy vines. As melons need much moisture to grow well, the ground on which they were planted had been covered with straw. The straw held the moisture in the ground. It also kept weeds from growing. In a few weeks the melons could be eaten.

Canning for Winter

In the Simpson home, summer canning had already begun. Some of the early vegetables in the farm garden were now fully grown. Mrs. Simpson, like most farm women in this region, did some

One method used in canning is pressure cooking. The raw or partly cooked food is packed in jars and placed in a rack in the steam cooker. The steam cooks the food so that it will keep.

Courtesy Farm Security Administration



canning every day so that none of the vegetables would spoil and be wasted. Mary helped her mother, for she was eager to show what she had learned at her 4-H garden club.

Very early each morning, Mary and her mother went to the garden and gathered the vegetables that were ready to be canned. Returning to the kitchen, they picked over the vegetables and selected the very best. They then washed and canned these vegetables.

The Apple Crop

One day as Mary and her mother were busy at their canning, Fred came in from the apple orchard.

"My," he said, "the apple trees are simply loaded this year, and very few of the apples are wormy. It's good that we have learned to spray the trees when they are in blossom; it kills worms and harmful insects."

"Yes," said Mrs. Simpson. "A heavy apple crop means more fruit to put in the fruit cellar for winter. I hope we shall have a great many apples to sell, too."

Farmers spray their fruit trees to protect them from diseases and insects. The liquid is sprayed on the trees by air pressure, in much the same way as your mother sprays against moths and mosquitoes.

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Photos: Courtesy J. I. Case Co. and International Harvester Co.

Growing Corn

In planting corn the field must first be plowed. In the corn belt, many farmers plow with tractors. Later on, the ground is gone over with a disk harrow which cuts up the soil, a pulverizer which crushes the clods, and a peg-tooth harrow which rakes the soil smooth. This farmer hitches three machines to a tractor to do all this work at once.

Next the farmer puts the corn seed in the two hoppers on the corn planter. As he drives the horses across the field, the planter drops several seeds into each hill. Can you see the marker to the right that makes a straight line for the farmer to follow on his next trip across the field?

Some farmers use tractors to pull their corn planters. This way of planting corn is much faster than planting with horses. After the corn comes up, the soil about the young plants must be kept loose and free from weeds until the corn plants grow tall enough to shade the ground. Then the weeds grow slowly, and the corn needs no more cultivation.

Photos: Courtesy J. I. Case Co., International Harvester Co.; J. C. Allen & Son





Wheat is planted with an implement called a grain drill. The grains of seed are carried in a long box and dropped into the tiny furrows made by a row of disks. The same drill may be used for planting oats, rye, and other small grains.

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Harvesting the Wheat

On the Fourth of July the Simpsons went to the celebration in Mill Town. They saw an exciting ball game and ate a picnic supper of country-fried chicken. At night they watched the fireworks light up the sky with bright and flaming patterns.

On the way home, Mr. Simpson said, "I hope we won't be too tired to get a good share of the north wheat field harvested tomorrow. The grain in that field is just ripe enough for harvesting now. The kernels will thresh out well because the heads are very dry. We must not lose a bit of time."

The Simpson family knew what he meant. Sometimes July brought severe

thunderstorms and heavy winds. These often knocked down the wheat and so robbed the farmer of his crop.

At sunrise the next morning, Fred pulled the bright, tan-colored *combine* to the north wheat field with the tractor. Tommy and Mr. Simpson followed with the grain truck. Two neighbor boys, Jerry and Pat Smith, came with their truck too.

Mr. Simpson and the Smiths had bought the combine together, and now they were going to help each other with their harvests, as most farmers in this region do. The Smiths' wheat was not quite ripe enough to harvest with a combine so they were going to begin with the Simpsons' crop.



Wheat is harvested in the summer. This combine cuts and threshes the wheat at the same time. As the grain is threshed, it is collected in the grain tank at the top of the machine. When the tank is full, a truck or wagon is brought alongside and the grain is emptied out into the truck through a spout.

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Not all farmers in the corn belt use combines. Those that do not, use binders. These are machines that cut the stalks of grain and bind them into bundles. These bundles are then stood up in shocks to dry.

Ewing Galloway



The combine cut and threshed the wheat at the same time. The machine was drawn through the field by a tractor. Trucks followed after to haul away the grain. Most of the straw was left standing in the field. When the field was plowed later on, the straw would be turned under to make the ground rich in plant food for later crops.

All day long the combine hummed in the field. It moved along in a cloud of dust and *chaff*. Only a short stop was made for the noonday meal. At four o'clock in the afternoon, Mrs. Simpson and Mary took sandwiches and coffee to the hard-working men. Then the combine ran until nearly dark. After they finished working, Mrs. Simpson served a hearty supper to the hungry men.

On the third day of the Simpsons' harvest, great clouds began forming in the northwest. "I don't like the looks of those clouds," said Fred, wiping the sweat from his tanned forehead. "We'll have to hurry."

Hurry they did. By midafternoon the last head of wheat had been threshed and the combine put away in the machine shed.

The Thunderstorm

"Just in the nick of time!" exclaimed Mr. Simpson, as they all ran for the house. A cloud of dust whirled through the yard. The chickens scampered for shelter. Suddenly, a blinding flash of lightning split the sky. A moment later a crash of thunder made the house tremble. Then the rain began to fall. The

When the time comes to thresh the grain, the bundles are loaded on wagons and hauled to the threshing machine. The bundles are pitched into the thresher, where the grain is separated from the chaff and straw. The straw is blown up into a great stack, while the grain comes out through a spout and is gathered into bags or grain trucks.





Haying season is a busy time on the farm. The ripe hay is cut with a mower and left to dry for two or three days in the hot sun.



Courtesy J. I. Case Company

Next the dried hay is raked into windrows reaching from one end of the field to the other. The hay is now ready to be gathered.

wind swept it across the yard in sheets and lashed it against the buildings. It began to stream from the barn roof, making a growing pool of water in the barnyard. A bolt of lightning struck down the road a little way and tore a

great splinter of wood from a telephone pole.

The rain fell in torrents for about half an hour, and the wind blew fiercely. Then suddenly the storm stopped almost as quickly as it had begun. The wind

The easiest way to handle hay is to bale it. A tractor draws the baling machine along the windrow, and the hay is quickly pressed and bound into bales. Baled hay is easier to ship and store. Hay that is not baled takes up about three or four times as much space as baled hay.

Courtesy J. I. Case Company





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Most farmers load their hay with hay loaders. The men on the hayrack carefully spread the hay about so that it will not slide off. At the barn the hay is lifted into the haymow with a long rope and pulleys. At the opposite end of the barn a horse is hitched to the rope. When the farmer on the hayrack gives the word, his helper at the other end of the rope drives the horse forward, pulling the hay into the haymow. Much hay is produced in this country as feed for cattle and horses. A great deal of hay is raised in the region where the Simpson farm is located.

Courtesy Rothstein—F. S. A.



*H. Armstrong Roberts*

Farmers must be on the watch for signs of storms. They try to get their hay harvested between rains, and they make sure their stock is all right when a storm is coming. Storms can do much damage to crops.



died down, and the thunder rumbled away in the distance. The western sky began to clear and redden with the setting sun, and a beautiful rainbow arched across the eastern sky.

"'Rainbow at night, shepherd's delight,'" quoted Mr. Simpson.

"That means tomorrow will be a fine day," said Mrs. Simpson.

"Good," remarked Tommy. "Then I can go to 4-H club. The meeting tomorrow is going to be about training our calves to lead with rope and halter. I'll have to train Red Boy so that he will behave properly at the fair."

Most farm communities have 4-H clubs where boys and girls learn how to raise calves, hogs, and other livestock, and the best ways to grow corn and other crops. The girls learn homemaking, too.

Samuel D. Mysliss



Photos: J. C. Allen & Son

Work and Play on the Farm

Part of a farm boy's chores is tending the small garden where the vegetables are grown for the family's use. This boy is carrying the start of a good meal to the kitchen—sweet corn and crisp beans. Farm children have plenty of fun during their long summer vacations. The boys like to play baseball. Flying kites is another sport they never grow tired of. Many farms are near a brook or river where a boy can go fishing and catch a good string of fish.





Courtesy Lee—F. S. A.

Hoeing the garden on a hot summer day is no easy job. The soil must be kept loose so the moisture can get to the roots of the plants, and the weeds must be kept down. After a few hours of hard work, it is great fun to cool off in "the old swimmin' hole."

Erving Galloway



Things to Talk About

1. How is the ground prepared for corn planting? How is the corn cultivated? What two reasons can you give for cultivating corn?
2. If you have helped your mother prepare vegetables for canning, tell about it.
3. Why do farmers spray their fruit trees?
4. Tell about the work that a combine does. Some farmers use a threshing machine. Can you think of any reasons why a combine is better than a threshing machine?
5. Tell the story of haying from the time the

hay is cut until it is put away for the winter.

Things to Do

1. Try to get some wheat and plant a few kernels. Water them and watch the plants grow.
2. Collect pictures of all kinds of farm implements. Paste them on a chart or in a notebook. Give the name and use of each.
3. Find these words in the glossary and in the sentences describing the pictures: *pressure cooking, steam cooker, pulverizer, hoppers, grain drill, combine, binders, threshing machine, chaff, bale, baling machine, windrows, hayrack and haymow.*

THE STATE FAIR

The end of August came, and with it state fair time. Every year this fair was held at the state capital.

Fred and Tommy arrived at the fairgrounds with Red Boy the day before the fair was to start. The rest of the family followed by automobile two days later.

"If the number of cars on the highway means anything," said Mr. Simpson, "the crowds will be greater this year than ever. The state fair is about the greatest event of the year in our part of the country. It gives one a very good picture of what is raised on the farms of our state. It shows, too, the new improvements that have been made in farm machinery and automobiles," Mr. Simpson added. "Do you remember? It was at the fair that we learned how our farm could be equipped with electric lights."

Favorite Exhibits

"What do you like best of all at the fair, Mother?" asked Mary.

"Oh, there are so many things," answered Mrs. Simpson. "I like the home exhibits very much—the quilts and embroidery, the rows of canned foods, and

the flower and vegetable displays. I get many new ideas for improving my own work at home."

"I like the school exhibits," said Mary. "It's fun to go down the rows and rows of pretty posters and booklets looking for our own school exhibit. Our teacher

People come for many miles to enjoy the fun and to show their prize animals at the fair.

Courtesy Rothstein—F. S. A.



sent my corn booklet this year. I'll have to see if I got a prize."

"Don't you like the 4-H sewing and canning exhibits?" asked her mother.

"Oh, yes," said Mary. "I like to watch the girls showing the best ways of cooking and canning. And I want to see if Annabelle Smith wins a prize for making that old washstand over into a pretty dressing table."

"I always like to visit the exhibits where the different machinery companies show the latest *farm implements*," said Mr. Simpson. "Even if I can't buy any new machinery now, they keep me acquainted with the latest improvements."

Fun and Excitement

At this moment the Simpsons reached the fairgrounds. What a colorful sight met their eyes! Great white buildings with flags floating in the breeze, throngs of people moving slowly from one building to another, a sea of automobiles filling the parking lots.

"I think we had better go first to the 4-H building and find Fred and Tommy," said Mr. Simpson, after they had parked the car.

As they walked along, they heard the whistle of a small train and the delighted shouts of children riding on it. From the place where the sideshows and games

This is the amusement section of the fair, the part that is called the "midway." Many rides, like the Ferris wheel, the merry-go-round, and the Lindy Loop are enjoyed by both young and old. There are shows like the ones in a circus or carnival, and booths where hamburgers, hot dogs, candy, ice cream, and pop are sold. The midway at the fair is always filled with crowds of happy people.

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were located came the music of merry-go-rounds and the cries of the *barkers*. The barkers were shouting at the crowds through loudspeakers, urging them to buy tickets for the various attractions.

"Mother, see the Ferris wheel over there," said Mary. "Isn't it high, though! We could see the whole fairground from the top of it."

"There would be much to see," replied Mr. Simpson. "These grounds are nearly as large as our whole farm."

As they neared the doorway of the 4-H building, the Simpsons heard a familiar voice. It was Fred's. "Come on in," he said. "Tommy is with Red Boy. He's talking with a number of other boys about school and 4-H work."

The 4-H Building

The interior of the building was very large. The hum of many people's voices rose over the long lines of stalls filled with 4-H cattle. A husky bellow from one of the calves rose above the noise of the crowd and echoed throughout the great room. A smell of fresh straw and alfalfa filled the air.

"These animals certainly show what good feeding and care will do," said Mr. Simpson.

"Yes," answered Mrs. Simpson. "And it also shows what fine training 4-H club work is for boys and girls."

Some of the 4-H boys were seated on bales of hay chatting with each other. Some were combing and brushing their roly-poly calves to make them look their best.

Soon the Simpsons caught sight of Tommy. "Hello, Dad and Mother and Mary!" he cried. "The calves in Red Boy's class are to be judged at three

o'clock this afternoon. You'll be here for the judging, won't you?"

"We surely will," said Mrs. Simpson. "We wouldn't miss seeing Red Boy get a blue ribbon for the world."

A Trip Through the Fairgrounds

Leaving the 4-H building, the Simpsons next visited the new machinery exhibit. Here they saw tractors, combines, corn pickers, harrows, and many other kinds of farm implements. Then they passed through the *aquarium*, in which they saw the many kinds of fish to be found in the streams of the state. Next they went through the poultry barns. Mrs. Simpson wanted to see the *Leghorn* chickens, the kind she raised.

The hog barns were filled with pens in which were hogs of every breed and size. Some of the hogs were sleeping on their straw beds. Others were looking through the bars of their pens, grunting at the people who walked by.

The Simpsons went from one pen to another. Soon they came to a poster which read:

"The corn belt is the most important meat-producing region in the United States. The people of the world need meat for food, and the animals that supply our meat and do our work are fed largely on corn. The states of the Middle West produce nearly three fourths of the world's supply of corn. That is why they can raise so much livestock."

In another building Mary found the school exhibits. Her corn booklet had indeed won a prize. So had Annabelle Smith's table.

Red Boy's Prize

For some time Mr. Simpson had been nervously glancing at his watch. "It's



The 4-H cattle are lined up for judging. The proud owners stand at their heads while the judge examines them. Everyone is anxious to see which animal will win the blue ribbon.

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nearly three," he finally said. "We'd better go over to the building where the 4-H stock is going to be judged."

Soon after they had found seats in the grandstand of the show building, the boys in Tommy's group began leading in their calves.

"There's Tommy," cried Mary excitedly. Tommy was the smallest boy in the group. But how like a little man he walked! And Red Boy moved along beside him as a well-trained 4-H calf should. The boys lined up their stock in a row, and after a short wait, the judges began their work.

The moments which followed were anxious ones for the Simpsons. Even Mr. Simpson's heart beat faster as he watched the judges pass their hands over the calves' bodies, legs, and *muzzles*.

HARVEST AND THE END OF SUMMER

October came, and far and wide over the great level region the biting frosts of fall were turning the cornfields a rusty tan. The corn crop was ready for *husking*.

Husking Corn

In some of the fields farmers were already at work. Some of them husked the ears of corn by hand in the same way their fathers had done before them.

"Do you think Tommy will win, Mother?" whispered Mary.

Just as she spoke, one of the judges pointed to a fine-looking calf which belonged to one of the larger boys in the group. This boy proudly led his calf forward. The Simpsons held their breath. Was that going to be the winner? It certainly looked that way. For a few seconds the judges talked earnestly together, and then turning to Tommy, asked him to lead Red Boy forward. The crowd now grew very quiet. Which of the two was to win the blue ribbon—Red Boy or the other calf? Perhaps it would be a tie.

But no. Suddenly the crowd broke forth in a cheer, and the Simpsons breathed a deep sigh of joy. Tommy had won. From Red Boy's halter hung a magnificent blue ribbon!

"Bang, bang, bang" went the ears against the bangboards of the wagons as they flew from the busy hands of the huskers. Teams of horses drew the wagons slowly through the field beside the huskers.

But the Simpsons as well as many other farmers around them had a new way of husking corn. They used a *corn-picking machine*.

This farmer is harvesting corn by hand. He tears the ears from their husks and stalks and tosses them into the wagon. The high side of the wagon is called the bangboard. Can you guess why? It keeps the ears of corn from falling over the side when the husker throws them into the wagon.

Courtesy J. I. Case Company



Early one Saturday morning, Fred hitched the tractor to the corn-picking machine and drove it to the cornfield. Mr. Simpson and Tommy followed behind in the truck.

"We can pick three or four times as much corn in one day with this machine as we could pick by hand," said Mr. Simpson.

As the roaring tractor pulled the corn picker along the rows of corn, the ears were quickly torn from the stalks, husked, and fed through a long spout into the truck. Mr. Simpson had to keep the truck moving beneath this spout to catch the ears of corn as they came out.

In two weeks the Simpson corn crop had all been picked. And a good thing it

was too. For only a week later the first blizzard of winter buried the fields under a thick blanket of snow. Farmers who did not have machine pickers were later than usual getting their crop harvested.

Another long winter had come to the prairies. But the Simpsons were prepared for it. Their corncrib, silo, and haymow were filled with feed for their livestock. Their fruit cellar was well stocked with canned foods, potatoes, apples, popcorn, and other good things for the table. There was enough of everything until another harvest.

Tommy and Mary spent every day except Saturday and Sunday in school. Each afternoon they returned home by bus and hurried through their evening

Mr. Simpson harvests his corn with a corn-picking machine like this. It husks two rows at once and dumps the ears into the wagon at the right. When corn is used as grain, it is harvested after the plants become dry.

Courtesy J. I. Case Company





H. Armstrong Roberts

This elevator takes the ears to the top of the roof and drops them through an opening into the corn-crib. The corn is stored in the crib until needed.



Some corn is fed to cattle—ears, stalks and all. The growing corn is harvested while green, chopped up in a machine, and stored in the silo.

chores. Their long winter evenings passed quickly in games and songs and pleasant talk. Almost before they knew it, baby chick time came again, and a new year began on the prairies.

Things to Talk About

1. Tell about any fair that you have attended. In what ways was it like the fair the Simpson family attended?
2. Why is the corn belt the most important

Have you seen corn shocks like these in the country? The farmer cuts and stacks some cornstalks together and ties them with twine. The shocks are left standing in the field until the farmer needs the corn. Then the stalks are sometimes run through a shredder. This machine husks the ears and cuts up the rest of the plant for feed.

J. C. Allen & Son



meat-producing region in the United States?

3. What do you suppose the judges looked for as they judged Red Boy and the other calves?
4. How many things does a corn-picking machine do? Do you think husking by hand or using a corn picker is better? Why?
5. How is raising corn in the corn belt different from raising it in the Navaho region? In Central America?

Things to Do

1. Try to find out:
 - a) The name of the capital of your state.
 - b) Are state fairs held in your capital?
 - c) What other things go on in this city?
 - d) What is put into a corncrib? A silo? A haymow?

2. Plan to hold a fair in your room. You may decide to model exhibits from clay, cut them from paper, make them in some other way, or bring them from home.
3. Make a booklet something like Mary's booklet that won a prize at the fair. Tell the story of corn in words and pictures and make an attractive cover for the booklet.
4. Find these words in the glossary: *bangboard*, *elevator*, *corncrib*, *silo*, *corn shocks*, and *shredder*. Test each other to see if you know what these words mean.
5. Draw pictures of scenes at the state fair, then draw pictures of a Central American market.

SOME OTHER FARM LANDS

The corn belt where Tommy lives is one of the best farming regions in the world. The ground is level and easy to cultivate. The soil is rich enough to grow large crops. There is usually plenty of rainfall to water the thirsty plants. And the summers are long enough for the crops to ripen before frost comes.

How different this region is from the land of the Boro Indians! There the ground must first be cleared of jungle growth before it can be farmed, and constant work is needed to hold the jungle back. It is no wonder the Boros raise only enough for themselves.

The growing of corn and other crops is not easy in highland regions either. The steep slopes are hard to cultivate, and the fields have to be small.

The people of dry lands have even a harder time raising crops unless they have water for irrigation. But the people of the corn belt have everything that is most needed for the growing of good crops.

There are other regions in the world that are much like the corn belt. And

the crops that are raised in these regions are much like those raised in the corn belt.

Argentina

One of these good farming regions is in the southeastern part of South America, in a country called *Argentina*. The farm lands of Argentina are level plains like the prairies of our own country. They are sometimes called prairies, too.

In Argentina most of the farms are very large—much larger than the one owned by the Simpsons. The owners seldom do much work on these farms themselves. Other people live there and do the work for them.

Most of the farming is still done by hand, but modern machinery is used on many farms. There are schools in Argentina that teach new methods of farming.

Much livestock is raised on the grassy pasturelands of Argentina, but very little is raised on the grain farms. Most of the corn is sold. More corn is shipped from Argentina than from any other country in the world.



The farmers of Argentina cultivate their corn with implements similar to those used in the United States. Few Argentine farmers have tractors.

Courtesy International Harvester Co.

Argentina is south of the equator. The Simpsons live north of the equator. So when it is summer in Argentina, it is winter in the corn belt.

We know that the land is hot the year round for many miles on both sides of the equator. Farther from the equator are lands with hot summers and warm winters. As we go still farther from the equator in either direction, we come to lands of hot summers and cold winters.

A region of hot summers and cold winters is well suited to the growing of corn, wheat, and certain other grains. The farm lands of Argentina are in this kind of region. But when the Simpsons are having to stay indoors because of a blizzard, the people of Argentina are caring for or harvesting their crops. And when spring work starts on the farms in Argentina, the Simpsons are picking their vegetables and other crops for winter. When it is summer north of the equator, it is winter south of the equator; and when it is winter north of the equator, it is summer south of it.

Union of South Africa

Across the Atlantic Ocean from Argentina, at the southern tip of Africa, is a country called the *Union of South Africa*. Here some of the plateau lands and nearby coastal plains make fine farm lands, and good crops are raised.

The hot, sunny days of summer and the rainfall are just right for the growing of corn. It is the most important crop grown in this region.

In South Africa corn is planted in October or November. Do you know why it is not planted in May, as it is on the Simpson farm? The harvesting begins about May, but often it is not finished before July or August. The winters are so dry that the corn will not spoil if it is left in the field.

The natives of this region use corn for food as José's and Joe's families do. They do not feed much corn to stock, so they ship some of it to other countries.

China

There are other good farming regions north of the equator besides our own. One of them is in *China*, where there are miles and miles of fertile plains. Most of the people who live on these plains are farmers. Chinese farmers live in villages and go out to work each day.

Chinese farms are very different from the farms of the United States, Argentina, or the Union of South Africa. They are very small. So many people live in China that each family can have only a very small farm. And every bit of land must be used if the people are to have enough to eat.

The fields are so small that Chinese farms look more like our gardens than our farms. The work is done more as we work in our gardens, too. Very few farmers have implements or machinery to work with. Men, women, and children do

the work by hand. Sometimes they carry water to irrigate their crops.

Different kinds of grains are raised in China, but in the region that is most like our corn belt, wheat, corn, and other grains are the chief crops. The people use all that they can raise of the crops for food for themselves and for their hogs and sheep.

India

Another farming region in Asia is in the country called *India*. Part of this country is a peninsula. On a map you can see it just west of the Malay Peninsula.

There are many small farms on the plains in the northern part of India. Here the land is warm most of the year, but there are rainy seasons and dry seasons as there are in Central America. Some years there is not enough rain during the rainy season. Then the people go hungry, and many of them starve.

The farmers work very hard for a living. As in China, most of the work is done by hand. Women and children work in the fields here, too.

Southeastern Europe

If you look at the map on page 168, you will see that there are good farm

lands in much of the southern half of Europe. This region of good farming is many, many miles long—so long that it extends over into Asia. The part of this region that lies in southeastern Europe is known as the “corn belt of Europe” because corn grows so well there.

Much of this European corn belt is a level plain like the corn belt in which Tommy Simpson lives. On this plain the soil, the rainfall, and the temperature both in summer and winter are well suited to the growing of corn.

Parts of several different countries are in this region. One of the most important of them is *Rumania*.

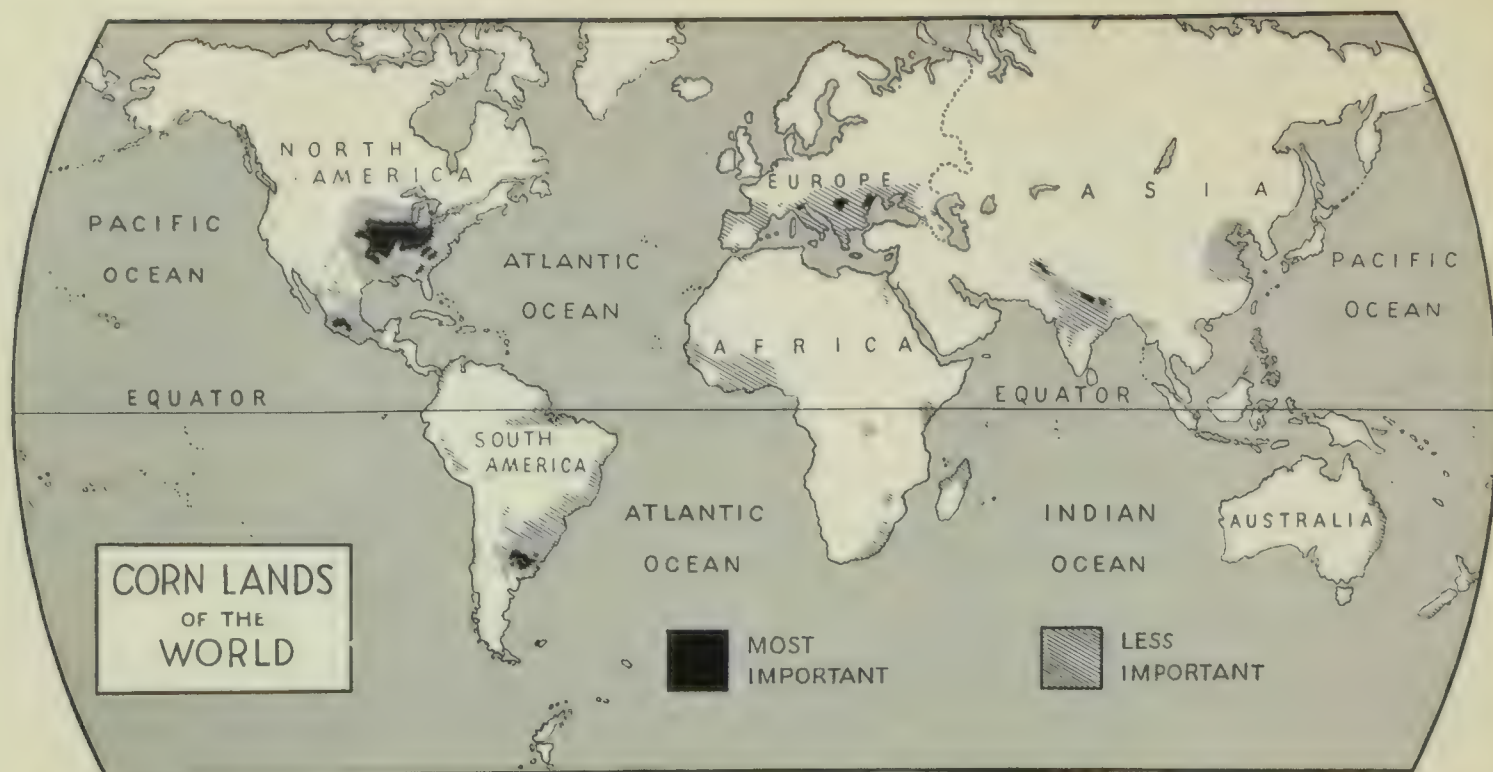
Most of the farmers of Rumania own their land, but their farms are small. Many of these farmers are very poor.

The poor farmers of Europe are called *peasants*. Few of the peasants of Rumania have modern farm machinery. Many of them have only wooden plows with which to get their ground ready for planting. Instead of cutting and threshing their wheat with combines, they cut and thresh it by hand. Instead of husking corn with a corn-picking machine, they husk it by hand, and they cut cornstalks by hand too.

This crude plow is the kind that has been used in India for centuries. In this country oxen do the work done by horses and tractors in the United States. Do you think the workers can crush the clods very fast with the tools they are using? They are doing the work done in the corn belt by a soil pulverizer.

Dever—Black Star and Dickason—Erwing Galloway





Corn is grown in many parts of the world. On this map the most important corn-growing regions are shown in black. Less important corn-growing regions are shown by shaded lines. Can you find the region in which the Simpsons live? What is this region called?

Many of the peasants do not even have animals to pull plows or carts, so they must do all their work themselves. The animals most commonly used for work in Rumania are *oxen* or *water buffaloes*. Tommy would think it very queer to see a slow, clumsy water buffalo pulling a plow. But these animals are very strong and can work hard.

Rumanian farmers raise almost everything they need, and they have much to sell besides. Thousands of bushels of corn and wheat are raised each year. Other grains and many kinds of fruit and vegetables are grown. And horses, cattle, sheep, and hogs are raised on some of the farms, too.

The homes of many of the peasants are wooden houses with large porches in front. The roofs of the houses are often thatched.

The women and children help with the work in the fields, but the women also

find time to spin and weave. They make the clothing for the entire family. They embroider beautiful designs on the men's jackets and on their own blouses and aprons.

The Simpsons would probably like to attend a fair in Rumania. They would see some of the beautiful Rumanian embroidery. They would also see pottery, baskets, and other things made by the people. They would see many exhibits of farm crops and farm animals, and taste some of the Rumanian food that is highly seasoned with red peppers. They would enjoy listening to the music of the gypsies playing at the fair.

Rumanian peasants often get together with their neighbors on winter evenings. They tell stories of the early days of their country. They tell of wars and heroes and sing songs together.

Sunday is a happy day, too. The peasants get together and dance the folk

Just as farmers in our corn belt raise other crops besides corn, so do the people in the corn lands of Europe. These people are gathering poppy seeds. They use them on rolls and cakes. Do you see the corn growing in the near-by fields?

Ewing Galloway



dances that their ancestors danced many years ago. So while the Rumanian peasants work very hard, there is much pleasure in their lives, also.

Farmers All over the World

Why do you suppose the farmers of South Africa, Argentina, and the other places shown on our map raise corn and wheat? These regions are all much like the region in which Tommy lives, and grains like corn and wheat grow best in regions of that kind.

In all these places, the summers are hot and the winters are cold. But the summers are long enough for grains to grow and ripen before frost comes.

These regions are level, and they all have good soil. Plants get their food from the soil, so it is necessary for the soil to be rich in plant food. Many farmers have learned to make their soil richer by adding fertilizer to it. Some farmers improve their soil, too, by growing one crop one year and another crop the next year on the same field. Different plants take different foods from the soil. And some plants even take food from the air and add it to the soil.

In all these good farming regions, there is enough rain to keep the crops well

watered. Corn needs more moisture than wheat, so wheat is raised in many places where there is not enough rain for corn.

Things to Talk About

1. Explain the difference in seasons between the United States and Argentina.
2. In what ways is farming similar and in what ways is it different in the following countries?
Argentina and the Union of South Africa
China and India
China and Rumania
Rumania and the United States

Things to Do

1. Prepare a radio talk to give before your group. Each of you may choose a different topic about farming for your talk. Some of your topics might be:
Farming in China
Farming in Highland Regions
Animals Used in Farming
Machines That Help Farmers
Farming in Dry Regions
My Visit to a Farm
2. On the map on page 168, find
 - a) The corn belt in the United States.
 - b) The corn belt of Europe.
 - c) Regions that have winter in July.
 - d) Regions that have summer in July.
 - e) Farm lands north of the equator.
 - f) Farm lands south of the equator.
3. Copy the chart on page 170 and fill the blanks with the names of the seasons.

SEASONS OF THE YEAR

	Sept. 22 to Dec. 22	Dec. 22 to Mar. 21	Mar. 21 to June 21	June 21 to Sept. 22
United States				
Argentina				
Southern Europe				
Union of South Africa				

BOOKS TO ENJOY

ALESSIOS. *Round the Mulberry Hill*. Longmans, Green & Co., New York.

Elly Russell loved the farm and the interesting things she saw all round her.

BEIM. *Blue Jeans*. Harcourt, Brace & Co., New York.

Dale was weak and timid, but a summer on his uncle's farm taught him to do so much and to like the farm so well that his father bought a farm for him.

CAMPBELL, SEARS, QUILLEN, HANNA. *Our World and How We Use It*. Scott Foresman & Co., Chicago.

Pages 128 to 181 tell about farming in the early days and show the many improvements that have been made up to the present time.

CURTIS. *Children of the Prairie*. The Thomas Y. Crowell Co., New York.

The story of two little girls and their pony on an Iowa farm.

GARRETT. *Jobie*. Julian Messner Inc., New York.

Jobie lives on a small farm where there are many animals, and many interesting things happen all the time.

HADER and HADER. *Farmer in the Dell*. The Macmillan Co., New York.

This picture book tells about the farmer's family and the farm animals all during the year.

HARTER. *Bread*. Follett Publishing Co., Chicago.

The story of wheat is told from the sowing of the seed to the making of bread. Many kinds of farm machinery and implements are shown in pictures.

HAYWOOD. *Two and Two Are Four*. Harcourt, Brace & Co., New York.

This easy book tells about two boys and two girls who went to visit their grandfather.

HORN. *Farm on the Hill*. Charles Scribner's Sons, New York.

The story and pictures tell about the interesting times that two boys have on an Iowa farm.

HUNT. *Corn-Belt Billy*. Grosset & Dunlap, New York.

Billy saw so many interesting things on his travels through the corn belt that he decided he wanted to be a farmer.

JUDSON. *People Who Work in the Country and in the City*. Rand McNally & Co., Chicago.

Nancy and Bob help with the chickens, watch the threshers and haymakers, learn about bees and calves, the 4-H club, and they do new things every day. Their cousins in the city visit the airport, watch the telephone operator, and do many other things that are just as interesting.

LENT. *Grindstone Farm*. The Macmillan Co., New York.

All kinds of interesting work go on at Grindstone Farm, and the boys who visit there see it all. Besides they have a roadside stand where they sell vegetables.

MCCONNELL. *Living in Country and City*. Rand McNally & Co., Chicago.

This book tells about Richard's and Jane's home in the country and their visit to the city. They have many interesting experiences in both places.

MCINTIRE. *How the City Serves Its People*. Follett Publishing Co., Chicago.

Stories and pictures tell how people in the city work, play, travel, fight fires, keep well, and help each other in many ways.

MCINTIRE. *Milk*. Follett Pub. Co., Chicago.

Stories and pictures about dairy farms and city dairies and the uses of milk.

5. *Chris of Courage Cove*



THE moment Chris opened the door he smelled it, the most delicious smell in all the world to a hungry Maine schoolboy — hot blueberry pie!

“Um-m! First blueberry pie this year!” he exclaimed. “May I have a piece, Aunt Emmie? Just a small piece over here where the juice is oozing out?”

“No, you may not,” replied Aunt Emmie sternly. She slipped another pie out of the wood-stove oven and placed it on the broad window ledge beside its twin to cool. Then she straightened her long lean back, brushed away a stray lock of gray hair, and stood for a moment looking at the golden-brown pies.

“They are not so bad, if I do say it. Your Ma and I had to spend an hour this morning finding enough berries for just these two pies. In a few days there will be bushels of blueberries, but right now they’re kind o’ scarce.”

Chris sighed. Taking one last, lingering sniff of the pies, he turned to leave the kitchen. Just then his mother came in, carrying a covered basket.

Vacation Plans

“You back, Chris?” she asked, as she set the basket on the kitchen table. “School out?”

Chris nodded. “Until fall. I passed.” Mrs. Pruitt’s sharp blue eyes gave him



A. C. Shelton

Small fishing boats are anchored in the cove; fishermen's shacks stand at the water's edge; nets hang drying in the sun. These are all signs that this is a fishing village. What other signs can you see?

a quick look of approval. Like most fishermen's wives, she liked to talk when out in company, but in the home and at work, she seldom spoke more than necessary. "Good," was all she said. "Help me get these *lobsters* out of the basket, will you? Mind they don't pinch you!"

Chris peered inside at the greenish-black bodies, long clumsy claws and delicate feelers. It was wonderful to live near the *sea* where one could catch fine fish and tasty lobsters.

"What are you going to do with them, Ma? Broil 'em?"

"No. I thought I'd make them into a mess of *chowder*. That's your father's favorite, you know. Suppose you run over to the Webb sisters for me, Chris," continued his mother, "and ask them if they can spare half a dozen eggs. I don't know what's got into our hens. They just won't lay as they should. Say I'll send the eggs back the first of next week. And, Chris, you'll find some fresh doughnuts in the pantry. Better take along a couple to eat on the way."

Chris ran off, glad to be out of the house. He wondered, as he stuffed the doughnuts into his mouth, what he would

be doing during the summer. School had closed today, and he had not yet made any plans for the weeks of vacation that lay just ahead. There'd be the usual chores and errands to do, of course, and he'd pick up small sums of money doing things for the summer visitors to the *seashore*. Still, he'd have some time to spend around East Wharf and Scroggins' General Store with the other boys. Now that he was eleven, he could go out in the little boat with his father to help set the *lobster traps*. Better yet, he could go out with him and the other men when they set off in the bigger boat for *deep-sea fishing*.

The Story of Courage Cove

After a few minutes' walk along the clay road, Chris took a short cut over a meadow with its rough grass, white-and-yellow daisies, and many gray stones. Soon he came to a road made of clam and oyster shells. The sharp edges of the shells were hard on bare feet, but the road was lovely to see with its white shells gleaming in the sunlight.

Chris began climbing toward the main highway. From the top of a huge *granite* rock he could enjoy a view that never

failed to thrill him. Up and down the New England *coast*, where the land and water meet, there must be many such scenes; but to Chris it was the most wonderful sight in the world. Forgetting his errand he climbed to the top of the rock.

There in front of him was Courage Cove, a little *bay* or inlet of the sea. The rocky land on three sides of the bay protected it from the winds and storms. Courage Cove was about half a mile across and cut into the land for about a mile. Chris loved to hear his grandfather, Jonathan Pruitt, describe how Courage Cove had been found and named. To hear the old man tell the story, one would think he had been there himself, instead of one of his ancestors, 300 years ago.

"The men were just about done up," he would say. "They'd been sailing across the endless ocean for over seven weeks. The winds had blown their sailboat off its course. They were almost out of food and water and entirely out of patience with this rocky coast. What was even worse, they could see a storm coming up, and they knew they had to get somewhere fast. Seemed like they'd never find a safe harbor.

"Well, sir, finally the first mate — that would be the first Jonathan Pruitt — called out to the captain, 'Look over there, sir, at the opening between that island and the shore. Doesn't that look a mite likely?'

"The captain allowed that it did but said one could never tell about such a narrow *channel*. There might be a *sand bar* across it. Still, the storm was getting nearer every minute, so finally the old man called out to his crew, 'Courage, men, we'll make a run for it!'



Irving B. Lincoln—F.P.G.

Along a rocky coast like this the first Jonathan Pruitt sought shelter from the storm.

"Well, sir, they ran her in through that channel, just as slick as grease, and there was the prettiest cove you'd ever hope to see. A real, natural harbor it was, protected from the winds and waves. So the men dropped anchor and went ashore. They've called it Courage Cove ever since, so they have!"

From his perch atop the great boulder on the hillside, Chris looked down once more at the cove. All that he saw seemed good — and exciting. Most interesting to Chris was the old sailing vessel, the "Elsie J." As long as he could remember, the "Elsie J." had been stuck fast in the

Here and there along this coast battered hulks of old sailing ships lie grounded in shallow water.

A. C. Shelton





sands of the shallow part of this cove. She was water-logged and gray from her many beatings by the ocean. Old Micah Phipps had once been her master, they said. Now he sat and whittled and smoked all day on the *wharf* or in the store, looking as gray and battered as his ship. The "Elsie J." and her master had both grown old on the sea, and they had drifted into shore to spend their last days.

Bobbing about in the water were a number of small fishing boats. This very



In nearly every fishing village an old-time sea captain can be found to tell interesting tales of adventures at sea.

James Sawders

day Chris's father, Seth Pruitt, had been out in one of them making the rounds of his lobster traps. There were many flat-bottomed boats called *dories*, still bright with their spring coats of red, blue, or yellow paint. When the summer people arrived, a small fleet of sleek and shiny motorboats and trim sailboats would also be seen in the cove.

At the entrance to the cove, Chris could see a pine-covered island. All round this bit of land the blue waters sparkled in the sunshine. This island helped to protect the mouth of the bay from the great storms and winds of the ocean. Beyond it, a few miles out, lay other groups of small islands. And beyond them was the Atlantic Ocean, blue, exciting, and sometimes dangerous.

Overhead, the *gulls* were circling and swooping, and uttering sharp, shrill cries. Gulls are pretty smart birds, Chris thought. They follow the fishing fleet in from the sea because they know there will be food for them when the men clean the fish on the way back to port. His father said the gulls nested on one of the islands far out at sea. He'd try to get out there this summer and maybe get a few of their eggs.

Eggs! Chris suddenly remembered his errand. The eggs from the Webb sisters! Sliding off the boulder, he ran back to the road and hurried on to the cottage.

When the fishermen clean their catch near the shore, hundreds of gulls fly about the boats, ready to pounce on any scrap of fish tossed into the sea.

H. Armstrong Roberts

A New England Gift Shop

Everything about the Webb place was neat and white — the house itself, and the picket fence around it. The tidy little flower bed in the patch of lawn had a circle of large painted white pebbles around it. A huge *anchor*, painted white, and covered with climbing vines, leaned against the cottage wall. On the window sill inside, a row of white-and-pink shells could be seen. Near the door was a sign bearing the words, "GIFT SHOP."

The Webb sisters had lived here all their lives. Old Captain Webb, their father, had been lost at sea these forty years. Miss Faith was short and plump and rosy. Miss Hope was tall and thin. Both sisters had lovely snow-white hair.

All during fall and winter and spring the sisters spent their days making things to sell. They stuffed small pillows with spicy evergreen needles and worked tall pine trees in green thread on the covers. They made hooked and braided rugs, and wove colorful scarves and table runners and bags on their little hand loom.

In the fall, the sisters hired small boys like Chris to gather fragrant bayberries for them. These they used in making candles. In the spring, they went out themselves with pails and little baskets to gather wild strawberries. These were made into small pots of delicious jelly.

Then during the summer, when the tourists and visitors came, they turned the front parlor of their cottage into a shop where the visitors could buy gifts.

Some of the places "summer people" like to visit are the gift shops. People often buy presents to take to friends at home and other things to remind them of their pleasant seashore vacations.

Philip D. Gendreau

Miss Faith answered Chris's knock. When he told his errand, she hurried off to the pantry to get the eggs. While he waited on the front porch, Chris peered in through the window. He wanted to see the beautiful model of an old *clipper ship* which hung over the fireplace. "That must be old Cap'n Webb's ship that went down off *Cape Horn* with all hands," he thought.

"Here you are, my boy," said Miss Faith, coming back. "Tell your Ma there isn't any call for her to return them. Not with all those nice lobsters your father sends us. And here are a few hot ginger cookies my sister just baked."

With a shy word of thanks to the old lady, Chris ran off.

Things to Talk About

1. Which of the things that Chris planned to do during his vacation would you like best?
2. Why do sailors try to keep their ships away from sand bars? What is a channel? What is meant by saying that the *Elsie J.* had become water-logged?
3. What kinds of roads are near Chris's home? Have you seen other different kinds of roads?



4. What would you buy if you could visit the Webb sisters' gift shop?

Things to Do

1. Make a play of this part of the story. Choose people to take the parts of Chris, his mother, Aunt Emmie, and the Webb sisters. The things they said may be read from the book. Choose someone to be Grandfather Pruitt and ask him to read the story that tells how Courage Cove was found and named. You
2. Look ahead to the map of this region on page 189 and build a scene in your sand table showing Courage Cove, the shores around it, a little of the ocean, and the near-by islands. A large mirror or a piece of blue paper may be used for water. You may wish to add other things to your scene later.

LIFE WITH THE PRUITTS

Supper was already on the table when Chris reached home. His father was at the head of the big kitchen table. Seth Pruitt's hair was gray, and his face was tanned from years of sun and wind. Chris looked at his father's rough strong hands. He wondered if his own fingers would ever be strong enough to pull in nets and lobster traps.

Chris's mother sat at the other end of the table. There were also Aunt Emmie, stiff and starched in a clean house dress, and Elmira, Chris's fifteen-year-old sister. Two familiar faces were missing — those of Chris's older brothers, Bill and John. Bill was now employed by a big fishing company in the city of Portland. John, who had always been more interested in machinery than in fishing, had just gone to work at one of the ship-building yards down the coast.

"More chowder, Seth?" inquired Mrs. Pruitt after she had served Chris.

"Don't mind if I do," replied Seth, as he passed his bowl for more of the delicious stew. It was thick with pink lobster and good Maine potatoes and was flavored with salt pork. "These are about the last of the lobsters for a while, I reckon. They're getting pretty close *inshore* and starting to shed their shells.

may want him to read this to Chris as he sits on the granite rock thinking about what his grandfather had told him.

Hope we have a good run of *mackerel* and *herring* this season, or we'll be short of food and money."

Summer People

Large squares of johnnycake and several kinds of preserves, jellies, and relishes rounded out the meal until it came time for the blueberry pie. Then as Chris was eating his second juicy piece, his mother remarked, "I met Mis' Newcombe down at Scroggins' today. She's been ailing all winter, and she isn't much better now."

Mr. Pruitt made no reply. Mrs. Pruitt went on, "She says she can't take in her summer people this season — you know, the Mitchells from Philadelphia who come to her every year. Of course, they could go up to Mansion House, or maybe even to Sea View Hotel, but I guess those places cost a lot more. And anyway, Mis' Newcombe says she knows they'd a heap rather be in a home on account of the children."

Seth grunted, but still said nothing.

"I was thinking about us having all that extra space now that Bill and John are gone," went on Mrs. Pruitt. "Elmira could double up with Emmie, just for the season, you know, and that would give us two good rooms they could have."

Chris watched his father's face closely. Mr. Pruitt had always been against their taking in summer people. "I'm no boarding-house keeper," he would say. "I'm a fisherman, and I'm going to be a fisherman so long as there's one herring left in the ocean."

"The money would come in mighty handy, Seth," continued Mrs. Pruitt. "With fishing, you never know what you're going to get. It may not be enough to pay for your *bait* and other expenses, like the summer before last, do you remember? Now, with summer people, it's not much, but it's cash, and you've got to have cash for clothes and dentists and the like."

Seth pushed back his plate and rose heavily from the table. "Have it your own way, Mira, only keep them out of my way. And I don't want any kids hanging around, asking fool questions. See?" And off he went, to check his gasoline tank, bait, and traps.

"What does Pa have against the summer people, Ma?" asked Chris.

"Nothing, Chris, nothing against them. He just feels bad because we have to take in summer boarders to help make a living. But he shouldn't feel that way. Most of our neighbors take in summer people, too. Now, Elmira, you do up the dishes, and Chris, you get in the firewood. Aunt Emmie and I'll go upstairs and see how we can fix up those two rooms."

Chris carried firewood from the woodpile to the kitchen, one armful after another. As he worked, he thought of what

his mother had just said about the fishing. He guessed that not many people grew rich these days just fishing. But then fishermen never had grown rich.

The Early Settlers

Chris remembered stories he had heard about the early settlers who came to this coast. They had come shortly after the Pilgrims had landed at Plymouth Rock, long, long ago.

They had found the land along the coast too thin and rocky for much farming. So, instead of farming, most of the early settlers took to the sea. Some became fishermen. Some became sailors, traveling to distant lands with *cargoes* of dried and salted fish. Others built boats. The woods supplied plenty of lumber with which to build splendid sailing ships. Some, like the beautiful clipper ships, were the fastest boats on all the seven seas. Many a fine cargo they carried across the waters in the days before the *steamship*. And the early settlers built hundreds of fishing boats, from little dories to sturdy five-masted *fishing schooners*.

The fastest sailing vessels ever built came from New England shipyards. Other countries tried to build ships that would match the speed of the "Yankee clippers," but they never quite succeeded.

Courtesy Alaska Packers' Assn.



Chris had heard his grandfather describe these old-time fishing schooners. Life on them was hard and rough and dangerous, yet the men must have loved it, because they stayed on in spite of all hardships. And his father would keep on being a fisherman as long as he lived. He loved fishing and the smell of the sea, the fresh breezes and the sound of waves slapping against his boat. He might never make much money, he might sometimes feel discouraged, but he would never give up fishing.

News at the Wharf

At last when the wood box was stacked high with wood, Chris brushed off his hands. "There! Guess that's enough for Ma to get Pa's breakfast with tomorrow morning." And grabbing his cap, he ran off toward the wharf.

The most important place on the wharf was Caleb Scroggins' general store. Caleb sold almost everything — groceries, dry goods, clothing, hardware, drugs, and *fishing tackle*. In summer, he added post cards and camera supplies for the visitors. Mrs. Scroggins was the postmistress and had her pigeonhole letter rack behind one of the counters. The three young Scroggins' helped out in the store from time to time, weighing up sugar and folding bolts of dress goods.

A few feet beyond Scroggins' was the barber shop, also a good place to hear the latest news and gossip. Beyond that was Henley's Supply Store, where all kinds of fishing tackle and bait were sold and boats were rented to visitors. Then came the icehouse, where men starting out for deep-sea fishing bought great

After the fishing boats come in, the wharf is a very busy place. The schooners are tied up at the docks, and the men busy themselves with their work. On the wharf are stores where fishing supplies can be purchased and boats can be hired.

Courtesy Massachusetts Fisheries Assn.



Lighthouses are to the seaman what highway signals are to an automobile driver. They are built to warn ships away from shallow waters and rocky coasts where they might run aground. They also guide ships into harbors.

Courtesy New England Council



buckets of cracked ice to spread over the fish:

As Chris neared the wharf, he saw a small crowd of men there. They were laughing, cheering, and joking. Old Micah Phipps and one of the younger men were having a contest to see who could *splice*, or join two ropes together, quicker. The old man's fingers were gnarled with rheumatism and age, and calloused with years of hauling in heavy, wet lines. The young man's hands, although already hard and toughened by the sea, were still straight and firm. But he lacked the sure skill of the older man, and a shout of approval went up when Micah held up a finished splice while the young man was still struggling with his.

The old man grinned, and rubbed his stubby white beard with satisfaction. "You young 'uns still have something to learn from us old 'uns," he chuckled happily, and relit his pipe.

The Artist at Lost Man's Light

"Good!" called out a voice Chris had never heard before. He turned and saw a fine-looking young man watching the contest.

When he saw Chris watching him, the

stranger smiled and said, "Hello! I'm Michael Maynard. I've bought Lost Man's Light over there on the point. I expect to be here most of the summer."

Chris was silent. He knew that the fishermen had felt bad when the government decided to sell Lost Man's Light. This was one of the smaller *lighthouses* along the coast. Its bright revolving light no longer flashed at night to guide sailors. The government said it was not needed any more, since there were few *cargo boats* plying up and down the coast.

Soon Chris's curiosity had the better of him. "What's it like in the lighthouse?" he asked its owner.

"Come over and see for yourself," replied Michael. "And by the way, would you like to earn a little money? You see, I paint. Pictures of the sea mostly. That's why I wanted the lighthouse for a studio. But I also try my hand at portraits. If you'll let me paint you, I'll give you fifteen cents an hour for posing. How about it?"

"I'll ask Ma," said Chris, a bit doubtful, and then dashed off, too excited and embarrassed to say good night.

Vacation has not started so badly,

thought Chris, as he drifted off to sleep half an hour later. The Pruitt family was finally going to take in summer people; he, Chris, had a paying job; and at last he was going to see the inside of Lost Man's Light!

Chris decided that he would go over to Lost Man's Light the very next day. But when morning came, there was just too much to do. And as the days flew by, Chris found it harder and harder to get away. His mother and father, not to mention Aunt Emmie, could always find more things for a fellow to do!

Besides his usual chores of bringing in wood and running errands, there was now the small garden to plant and hoe. The soil along the coast was too thin and poor for much gardening. But every year the Pruitts planted sweet corn, beans, carrots, and other vegetables for their own use. The older boys, Bill and John,

had always taken care of the garden. Now that they were gone, Mrs. Pruitt kept it up with Chris's help. She left most of the cooking for Aunt Emmie to do.

Chris and the Mitchells

People come from as far as a thousand miles away to spend their vacations along the coast. The days are not too hot here even in the middle of summer, and the nights are always cool. People love the fresh sea breezes which are so different from the hot dusty air of the crowded cities.

By the first of July the Mitchells had arrived. Like other summer people with children, they usually came to the seacoast as soon as city schools were out.

In the Mitchell family were two children, Judy who was eight, and David who was twelve. After David had laid aside his city clothes and put on blue overalls, Chris decided the visitor was not so bad. Soon they were fast friends.

Sometimes all four of the Mitchells would go off by themselves for a day's picnic. Other days the father would go alone, fishing off the rocks a mile or two up the shore, or he might hire Micah Phipps to take him out in his old dory for a little inshore fishing. Mrs. Mitchell and the little girl would go for short walks, looking for shells and pretty pebbles, or picking blueberries. This left David free to go places with Chris.

Life along the seashore delighted

Keeping lobster traps, or pots, repaired takes a great deal of work. A coarse net is fastened over each end of the trap. The lobster can easily get through the big hole into the net as he goes in search of the bait, but he cannot find his way out again.

A. C. Shelton



One way summer visitors have fun is by picnicking at the shore. After a swim they sit down to one of the meals for which this region is famous—broiled lobster.

Courtesy New England Council

David. Chris was proud to be able to tell the city boy all that he knew about it. Mr. Mitchell, who had been coming to the New England coast for many years, was able to tell both the boys a good deal about the many living things they found on the rocks, in the sand, and about the wharves.

What the Tide Brought

One morning Chris and David started out for the beach where they had played the afternoon before. As the *tide* was in, that part of the beach was now covered with water.

"I can't understand it," said David. "This morning we can't see any of the beach where we were playing yesterday afternoon! What makes the tide flow in and out, Chris?"

"Why, David," replied Chris, "you surely have learned about that in school, just as I have! Our teacher says that the tide is caused by the pull of the moon and the sun.



"The sea rises along the coast about every twelve hours. For about six hours the tide comes in. Then it begins to flow out, or *ebb*. That takes about another six hours. It's *high tide* now; so all the beach here is covered with water. Yesterday we were here at *low tide*. The water is now about eight feet deeper than it was at low tide."

When the tide went out that afternoon the boys found many small creatures washed in by the sea. Lifting up a large stone or looking closely at some big rock brought many surprises.

The *sea anemones* delighted David. At first he thought they were flowers with lovely, waving petals. He started

The first of these photographs was taken at high tide. The second shows the same scene six hours later with the tide out. How far do you think the water has dropped? Notice how different the floating wharves look in the two views. Their free ends float up and down with the tide.

Photos: Keystone View





This is one of the large crabs used for food by man. Crabs have powerful jaws and pincers. A boy must hold one carefully or he will be hurt.

Carl Berger—Black Star

to pick one. Chris stopped him just in time. "Look out!" he cried. "It will sting you!"

David jumped back and then poked at the sea anemone with a stick. At once its beautiful fringed "petals" started to curl in. Soon they were tightly closed and the creature looked for all the world like a lump of brown clay, instead of a brightly colored flower.

Once David almost stepped on a big mass of colorless jelly that was spread out in the wet sand. Chris told him this was a *jellyfish* and that it, too, would sting him. This creature is not really a fish at all, but an animal that looks like jelly and swims through the water. Its long, silky arms wave about and sting the tiny sea animals on which it feeds.

But the *crabs* were, perhaps, the most amusing of all the sea animals the boys found. They were so clever at hiding themselves! Mr. Mitchell would point to a place in the sand and say, "I see a *lady crab*." Both the boys would look closely but could see nothing. Then David's father would point to a pair of

tiny eyes stuck on the end of two wee stalks, sticking out of the sand. The boys would dig and there, sure enough, was the little crab. Tiny *rock crabs* looked so much like the rock they sat on that it was hard to spy them until suddenly they darted out after some tempting worm for dinner.

On their walks the boys came also to recognize *limpets* that cling to the rocks for dear life; and *barnacles* that hang on just as tightly to the wooden piles of the wharves or to the bottoms of old boats. They found, too, all sorts of tiny shelled creatures. David gathered a fine collection of shells that summer. He was eager to show them to his friends in the city.

Both the boys were fond of watching the birds along the shore. There were several kinds of *sandpipers*. Overhead the graceful *herring gulls* circled, filling the air with shrill cries.

David's father happened to be with them one day, and he explained, "Gulls are mighty useful birds. Just think what would happen if the gulls didn't clean up our beaches and carry off the fish and other sea animals which the waves leave on the shore to die. Why, the shore would soon be so littered with decaying matter that we wouldn't want to come near it.

"Every animal and every plant has a place of its own in this world of ours. The tiny animal creatures that live in the sea feed on the tiny plants. The large fish eat these smaller animals, and we eat the large fish!"



Photos: Black Star; Carola Gregor—Monkmeyer

Animals of the Sea

This sea anemone looks like a pretty flower, but it is really an animal. It lives attached to rocks and eats small fish and other creatures. Sea anemones can move slowly but they usually live in one place.

Jellyfish are found everywhere in the ocean, but they prefer warm waters. Do you think "jellyfish" is a good name for these animals?

The little sea horse is not a strong swimmer and usually lives clinging to seaweed. Do you think the name "sea horse" suits this animal?

Some of the sea animals are very beautiful, and some are very queer. The hermit crab has a strange habit of living in other animals' castoff shells. As it grows, it finds larger and larger shells to live in. If this crab wants a shell that is already occupied it often kills and eats the owner.

Devere Baker—F.P.G.



Ruth Bernhard—Black Star

Things to Talk About

1. What three kinds of work did most of the early settlers on the New England coast do? Why did so few of them become farmers? Why did most of them take to the sea?
2. For bait Mr. Pruitt used small fish or fish that were not good to eat. If you have fished, tell about the bait and fishing tackle you used. Do you know of other kinds?
3. How do you know that Mr. Pruitt liked his work? Do you know any people that like their work as well as Mr. Pruitt liked his?
4. Why should a fisherman or a sailor know how to splice a rope? Why were the other men glad when Micah finished the contest ahead of the younger man?
5. Why do city people like to spend their vacations near the seacoast? Would you like to spend a summer with the Pruitts? Why, or why not?
6. What are tides? How long does it take for the tide to come in?
7. In what ways are sea birds useful?

Things to Do

1. Look in books, newspapers and magazines to find pictures of seacoast people and their work.
2. Among the books listed at the end of this unit, find some which show pictures of the sea animals Chris and David saw on the shore. Show these pictures in class.

ADVENTURES OF DAVID AND CHRIS

One day, Chris persuaded his father to take David and him along for a day's fishing. Seth Pruitt was part owner of a large fishing schooner which was driven by a *Diesel engine*. It was this boat that the boys were going in.

"Tide's just right," said Seth, as they neared the dock. "In another fifteen minutes it'll start to run out and we can go with it." Fishermen always like to start out at high tide. At other times there are

dangerous rocks and sand bars on which they may be wrecked. But at high tide, their boats glide right over these in safety. Also, the flow of the water helps carry their boats out to sea.

Deep-Sea Fishing

The other men were already on the schooner and the engine was running. Large coils of *fishing line* with bait already on the hooks were lying on the deck and in the four small dories which the



Chris's father was part owner of a Diesel-driven fishing schooner like this. Notice the dories piled one on top of another in the center of the schooner. This ship carries sails to use when a good breeze is blowing.

Free-Lance Photographers Guild



Roger A. Hart—F.P.G.

Fishing lines are kept coiled up in tubs when they are not in use. This prevents the line from becoming tangled. The lines have hooks attached to them.

schooner carried. There were buckets of crushed ice covered with heavy canvas. The ice would be spread over the fish as they were caught to keep them fresh and in good condition.

Everything was ready and, with the ship's lights burning, they started out to sea. The schooner sailed out of the mouth of the cove, between the *floating buoys* that marked the channel. On they went, beyond Bear Island, beyond many islands, big and little, inhabited and barren, until at last they were out in the open sea.

Soon the sun rose, and another beautiful summer day had begun. About forty miles from shore, they reached a spot where the water was only fifty feet deep. There are many such shallow places off the New England coast. They are called *banks*. The seaweed and other sea plants grow thickly on these banks. Because fish come to the banks for food,



E. P. Dawson—F.P.G.

Floating buoys are placed in the sea to mark channel entrances and to warn seamen of shoals and other dangers by using lights or bells or both.

a bank is a good place for fishermen to set out their lines.

The schooner was speedily anchored and the dories were lowered into the water, with two men in each. The rest of the men stayed on the schooner and threw out their fishing lines from the deck.

The dories were quickly rowed away from the schooner. One man did the rowing and the other took care of the fishline, which was coiled in a tub. The line was many hundreds of feet long. Over two hundred short lines were fastened, three or four feet apart, to the long line. At the end of each short line was a baited hook. One end of the long line was then tied to a barrel, which was thrown overboard. As the dory was rowed away from the barrel, the line in the tub was carefully fed out.

After the line had been set and anchored, Chris and the two fishermen with



The fishermen go out in their dories, two by two, and spend the forenoon fishing. First the line is fed out; then after some time it is hauled in. The fish are taken from the hooks, and the line is quickly coiled and put away in the tubs.

Courtesy Massachusetts Fisheries Assn.

him let the dory bob around in the water while they ate their lunch.

After lunch they started to haul in their line. This required great care and skill. As the line was hauled out of the water, the fish had to be unhooked and thrown in a pile. At the same time, the line had to be coiled in the tub as it was pulled up. Otherwise, the wet line would get so tangled it could never be straightened out.

Ahead of the Fog

"Better hurry up a bit, mate," said the *oarsman* to the fisherman hauling in the line. "Don't like the looks of that sky. It's going to be thick o' *fog* before we get back to the schooner if we don't watch out."

It was long past noon when the dory Chris was in got back to the mother ship. Theirs was the last of the dories to arrive. The other men, too, knew how to read the weather signs, and had pulled in their lines just in time. The dories were quickly lifted on board, and the schooner set off at once for home.

All hands except the *helmsman* immediately went to work sorting and cleaning

the fish. This was a job that had to be done right away before the catch began to spoil.

All along the way they saw other fishing craft scooting for shore before the thick blanket of fog settled down around them. Already the deep tones of the *foghorns* could be heard, and *bell buoys* were sounding their notes of warning. However, the men knew the coast and the waters near it. They were able to bring the schooner safely into Courage Cove before the fog had completely settled down around them. Two hours later, everything — water, shore, boats, and houses — was wrapped in the thick gray fog.

It was not usual for the schooner to bring its entire catch home to Courage Cove. Ordinarily the vessel put in first at a *port* several miles down the coast, where there was a large *fish market*. But this time the fog forced the schooner home with its whole catch still aboard. So it was decided that everyone should get out bright and early the next morning and sell as much of the catch as possible to neighbors.

As the schooner heads for shore, the men busy themselves cleaning their day's catch of fish. This is done to keep the fish from spoiling.

Devere Baker—F.P.G.

"Phew!" said David, at supper that night. "This is a pretty bad fog, all right. How long will it last, Mr. Pruitt?"

"Maybe one day, maybe two. Maybe it will blow over by morning. You can't tell about them. Don't you young 'uns go prowling out among the rocks along the coast till it's lifted. It's not safe."

Things to Talk About

1. Tell why fishermen start out to sea at high tide. How do floating buoys help them? What are bell buoys?
2. How many uses do you know for Diesel engines? What kind of engine was in Mr. Pruitt's schooner?
3. Why is a bank a good place for fishermen to set out their lines? Can you think of any reason why these good fishing places are called banks?
4. Do you think it is very important for fishermen to be able to read weather signs? What weather signs do you know?

Things to Do

1. Pretend that you are David and write a letter to a friend telling about your fishing trip. Tell about all the interesting things that happened on the trip.
2. The following sentences tell a short story of the fishing trip, but they are not in the right

CHRIS'S VISITS TO LOST MAN'S LIGHT

The next afternoon Chris set out for Lost Man's Light to have his portrait painted. He had put on his best Sunday suit and shiny, hard shoes. His hair was neatly parted and slicked down. He felt stiff and uncomfortable as he made his way around the cove, then down along



order. Find the one that comes first, then the one that comes next, and so on.

They slipped out between the floating buoys.

The line had to be coiled in the tub as it was pulled up.

"Three o'clock, Chris! Time for you and David to get up."

Other fishing craft were scooting for shore. The schooner was anchored and the dories were lowered into the water.

The men were able to take the schooner safely into Courage Cove.

Chris and the two fishermen ate their lunch in the dory.

The schooner was ready, and the ship's lights were burning.

It was long past noon when the dory got back to the mother ship.

the shore line and out to the rocky *point* on which the lighthouse was located.

The Lighthouse

The lighthouse was a round stone tower about one hundred feet high. At its bottom was a little door, and part way up were two tiny windows. Higher yet

was a little balcony that seemed to run all the way around the tower. At the very top were the windows through which the light must have shone in the old days.

While Lost Man's Light was in use, it had been the keeper's job to see that the great light at the top of the tower shone brightly through the night to warn ships away from the dangerous rocks along the shore.

"The door's unlocked. Come in."

Chris looked up at the sound of the voice. It was Michael Maynard calling from the balcony.

Chris waved and went in. Climbing a narrow, winding stairway, he came at last to the artist's studio at the very top of the lighthouse. There were thick win-

dows on all sides. In the old days the huge, revolving light had almost filled this room. Now there was just enough space for Michael's easel, workbench and a couple of stools.

"Well, you've surely made a sight of yourself, my boy!" Michael exclaimed. "I wanted you just the way you always are. Take off those shoes, roll up your trousers, and muss up that hair a bit. And next time come just as you are!"

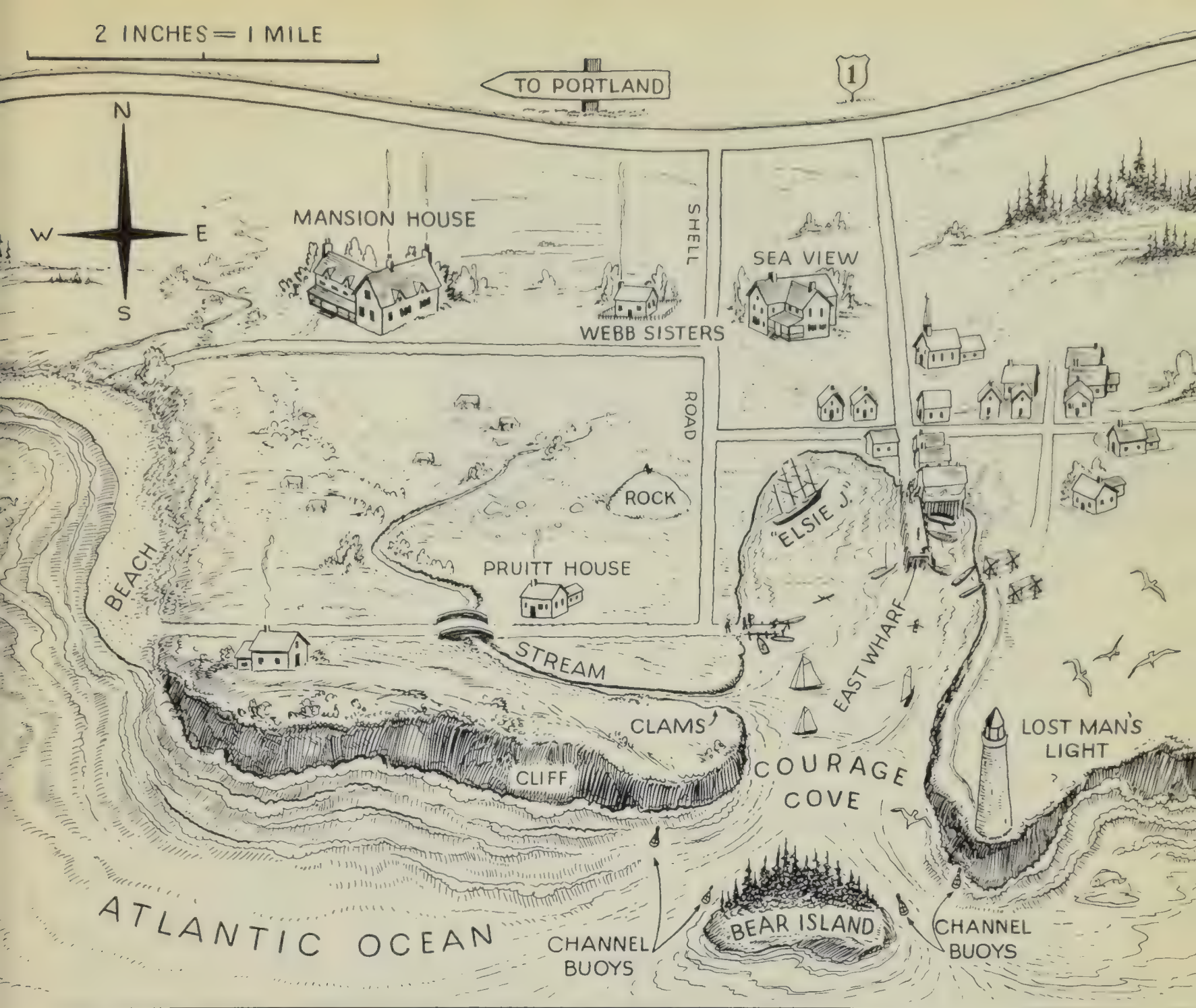
Michael had his canvas all ready. He could mix paints, sketch in rough lines, wield a brush, and talk at the same time. For about two hours he worked with speed and sureness.

"That's enough," he said. "Come again tomorrow at the same time."

Sailing boats is a great sport along this coast. Canvas sails are used to move these boats instead of oars or paddles or motors. The sails are spread on poles called masts, and the force of the wind blowing against the sails makes the boat move. By changing the position of the sails one can sail the boat in any direction. Changing the number and position of the sails will also make the boat move faster or slower.

Leon Seaf—Monkmeyer Press





This map shows the seacoast region where Chris lived. How many places can you find where Chris played, worked, or visited? Do you see the channel buoys and the lighthouse? Tell why they are placed where they are.

Chris's Portrait

After that, Chris went nearly every day. He soon got over his shyness. He and Michael had long talks about the ocean, about fishermen, about boats, and about the big city where Michael lived in the winter.

"Why are you painting me instead of the sea?" Chris asked one day. "You said you just painted pictures of the ocean."

Michael smiled. "Aren't you part of the ocean, Chris? I think you are. And

Micah Phipps and your father and Caleb Scroggins and all those men along the wharf — they are all part of this seacoast because they were made by it."

"How do you mean?" asked Chris.

"I mean that the things of nature which surround you — the soil, the ocean, the weather, everything about the place — help make you the kind of people you are. Life on the seacoast is hard, and the struggle to live has made you strong and self-reliant. It has also made you honest, and kind and friendly to your neighbors.



The New England seacoast is a favorite vacation place among artists. They paint the sea, the ships, the harbor scenes, and the fishermen. They also enjoy the fine sea air and the fishing.

Free-Lance Photographers Guild

On the other hand," Michael continued, "you people have earned your living from the sea for so long that you almost forget the vast stretches of land behind you. You think that the sea is the most important part of the world."

"Well, isn't it?" asked Chris.

"Not quite," answered Michael. "The sea gives us fine fish to eat and makes a good highway for our boats. But after all, most of our food must come from the land; and we get most of our clothing and the material to build our houses from the land. Why, even the wood to build your fishing boats must come from the land. You just remember, young fellow, that it takes both the land and the sea to make this world."

Chris was silent for a while. Then he said, "Well, I guess it is the land as well as the sea that makes our coast so well liked by the city people. Pa says that the tourist business will soon be a greater industry than fishing."

Michael laughed. "You have a beautiful coast and a fine summer *climate*. I hope that you will always be willing to share it with us summer folks. We need healthful vacations away from our

crowded cities. We need the beauty of your seashore, and the feeling of peace we get from just watching the ocean."

So they talked hour after hour. There was no end to what Michael knew, thought Chris. He had traveled all over the country, and he had studied in Europe. He had been to college and had even taught school for a year or two.

Michael's Ambition

"Do you make a lot of money, being an artist?" asked Chris shyly, one day.

"No. Sometimes I nearly starve to death," answered Michael promptly. "It's almost as bad as being a fisherman," he added, with a twinkle in his eye.

"Then why do you do it?"

"Because I want to record some of the beauty of the world while it is still here."

"Is that beautiful?" said Chris looking at the picture of his rather plain self. The portrait was finished. "*Maine Fisherboy*, by Michael Maynard," was written on the little card below the picture.

"We-ll-ll," replied Michael. "It is beautiful in its way. You see there is more than one kind of beauty. This pic-

ture shows, I think, something of the *character* of your people. I tried to make it tell a story of the honesty, courage, and self-reliance of seafaring folk. Some day I think people will be glad I painted it. And now, getting back to business, how much do I owe you? Have you kept track of the number of hours you posed?"

Chris shook his head. "Ma said it wouldn't be honest for me to take any money. She says you did the work. I just stood by. Besides, I don't want to be paid for that, anyway."

Chris's Present

"As you say," said Michael. "But perhaps you won't mind taking a small present to remember our work by?"

He took Chris down to the next landing of the tower, opened a cupboard and took out an old spyglass which Chris had often admired at the Webb Gift Shop.

Chris was so surprised and happy, he almost forgot to say "Thank you, sir," before dashing home with his treasure. He could not imagine a finer reward for the hours spent at Lost Man's Light.

Clam fishing is different from other kinds of fishing. Soft-shelled clams burrow into the sand along the seacoast and at river mouths. Fishermen dig for clams along the shore at low tide. People hold clam-bakes on the beaches just as people in other regions hold picnics in the country.

Things to Talk About

1. If you have seen a lighthouse, tell the class about it. Would you rather be a lighthouse keeper or a fisherman? Why?
2. Michael told Chris that the things around him had helped to make him the kind of person that he was. Do you think the regions in which they live have made any differences in the people we have read about in the other units?
3. Name some of the things the sea gives us. Some of the things the land gives us.
4. Why do you suppose Michael chose to be a painter when he made so little money? Is there any way in which people can be paid for work besides with money?

Things to Do

1. Try to find some pictures of lighthouses. In what ways are they like Lost Man's Light? How are they different?
2. Ask a boy in your class to pretend that he is Chris and pose while the others draw or paint his picture.
3. Write riddles about any of the people you have read about so far in this story. Read your riddles to each other and try to guess the answers.

A. C. Shelton





George Daniell—F.P.G.

These herring have been caught in a large fish trap. The fishermen have seined the trap with a big net which they then dragged into one corner of the trap. They surrounded the big net with their boats and are dipping up the herring with smaller nets. In these traps fishermen catch thousands of fish at once.

THE COMING OF FALL

Summer passed so quickly for Chris that it was over before he knew it. The summer visitors returned to their homes in the city.

Herring and Lobster Fishing

With the coming of fall, the fishermen's work underwent a change. Mackerel were scarce this season, but herring were more plentiful than usual. The men went out a few miles from shore with large, round nets called *purse seines*. Herring travel together in large groups, or *schools*, near the surface of the water. When a school is sighted, the net is thrown out around the fish. The bottom of the net is drawn up tight, the way a bag is closed with a drawstring. Then the net is hauled in, with perhaps thousands or tens of thousands of the tiny fish in it.

Many of these little herring are sold to the *canning factories*. After they are cooked, the fish are packed tightly in small flat tin cans. The smallest of them are sold as *sardines*. Some of the herring are salted, and many are used for bait. Millions of pounds of sardine herring are caught off the New England coast every year, but they are sold so cheaply that the men do not make much money from them.

Now that the weather was cooler, the lobsters were moving away from the shore. Their new shells were hard by now, and their flesh was firm and good to eat. Seth Pruitt and all the other Courage Cove lobster men had their lobster traps, or pots, in good order.

Mr. Pruitt owned about seventy-five lobster pots. Every day he went out and

When the ships come home from a fishing trip, the herring are spilled into large, floating containers near the fish canneries. Soon afterward they are cleaned, cooked, and canned.

George Daniell—F.P.G.

hauled up the pots, and took out the lobsters. Then he put in fresh bait and lowered the pots again. He fastened the claws of each lobster together with a small metal clamp. This was to keep the lobsters from fighting one another.

The law requires that lobsters must be alive when they are sold. They do not live long out of salt water. So Seth had a large floating box anchored out from the shore. Its slats were far enough apart for the water to flow through it. Every day he put his catch into this box. Once or twice a week a buyer came along in a boat called a lobster *smack*, and bought Seth's catch. Then the lobsters were rushed inland, to be sold alive.

Lobster fishermen bait their pots, or traps, with dead fish or garbage, and lower them into the water. Floats in the water mark the spots where the traps have been placed. Every day or so they haul up the pots and take out the catch. Hauling up seventy-five or more of these lobster pots is no easy task.

Free-Lance Photographers Guild



Keeping his pots repaired, mending his nets, and preparing the bait kept Seth busy for hours. Chris was able to help in many small ways. Some of the women of the village helped mend the nets, too.

School Begins

Soon school began. Chris had to walk almost a mile to catch the school bus on the main highway. In winter this meant walking through huge snowdrifts or against the driving rain. However, when





H. Armstrong Roberts

Some of the lobster catch is kept in tanks at the water front. When people come to buy them, the big green lobsters are pulled out of the water and sold alive and squirming.

he reached school, the building was warm and comfortable. A good hot lunch was served at noon. Elmira went to the nearest high school. After she finished high school she hoped to go to normal school, and become a teacher.

One afternoon Seth looked at the sky, sniffed the air, and said, "There'll be a killing frost tonight." Everyone went outdoors and began taking in whatever fruit and vegetables were still in the garden and on the trees. They worked until darkness closed in on them.

Sure enough, the frost came that night. The next morning the roofs of the houses and the leaves of the bushes sparkled like diamonds in the sunshine. Chris was glad to have his old red overcoat to wear to school again.

John and Bill Come Home

The big event of the fall was Thanksgiving Day. Bill and John were coming home for the holiday. Bill had written he would bring the turkey and also that he



Arthur Griffin—F.P.G.

Along this coast there are many places where live lobsters are for sale. People buy their own lobsters, have them cooked, and sit down to a lobster dinner in the open.

had a big surprise for them. Mrs. Pruitt and Aunt Emmie were ready with the mincemeat, cranberry sauce, and other good things for the feast. Then, early Wednesday evening the family heard a loud tooting outside. There sat Bill, proud as Punch, in a blue, second-hand automobile. Bill was the first one in the family to own an automobile.

He was proud, too, of his new job. "Pa," said Bill, as they all sat down to one of Aunt Emmie's good suppers, "working on one of the big *trawlers* is certainly easy compared with working on your schooner. We have a large steel boat with a powerful Diesel engine. It is equipped with every kind of device for safety. and for hauling in enormous catches. It has a deep *hull* with refrigerators for holding large quantities of fish. There is also machinery for quick freezing.

"We fish with huge nets, called *otter trawls*. These nets are spread out over



Courtesy Massachusetts Fisheries Assn.

The strongest and best fishing boats are Diesel trawlers like the one Bill works on. These trawlers are built for use in all kinds of weather, and go about their work when other craft are not able to put out to sea. Trawlers are built with their decks close to the water because heavy loads weighing thousands of pounds must be hauled over their sides.

the bottom of the ocean. They really sweep up all the fish that are feeding near the ocean floor. Big fish, baby fish, good fish and those not fit to eat, all are scooped up and hauled in.

"You don't like the new way of fishing," he continued, "but a man would never make enough money on one of your old schooners to buy a car like mine. Why, on one ten-day trip out to the banks, each of us men made \$175! You know, there's a radio telephone on board, and if the price of fish goes way down, the company just telephones us to stay out at sea and fish for a few extra days. Then when the market price rises a bit, they telephone us and we head for port at once."

"Humph," said Seth. "You aren't fishermen. You're just a crew of businessmen. I'm afraid it won't be long before all the old-time fishermen are gone. Only those who use modern ways of catching and selling fish will remain."

The next day was Thanksgiving Day. The whole family went to church. Even Aunt Emmie went, leaving the huge turkey, stuffed with dressing, to roast in the oven. At dinner, everyone said it was the best meal the family had ever eaten!

That afternoon before Bill and John left, all the men of the family went to the woods and cut down great heaps of spruce and balsam fir *boughs*. They dragged them home and banked them all around the base of the house. Stakes were driven into the ground to hold the boughs in place. They would help keep the wind out during the severe winter, and prevent frost from getting into the foundations of the house.

Things to Talk About

1. How does fishing for herring differ from the way Chris and David went fishing in the dory? How is Bill's way of fishing different from either of these? Which do you think is most interesting? Which is most dangerous?

2. Tell what you can about the uses of herring.
3. Why did Seth want to keep his lobsters alive until they were sold? How did he do it?
4. In what ways was the Pruitts' Thanksgiving like the Navahos'? In what ways was it different?
5. Why did the men bank the house with boughs? What do you do at your house to get ready for winter?

Things to Do

1. Read about lobsters in an encyclopedia or some other book. Try to find out why they grow new shells from time to time.
2. Pretend to be Chris and write a letter to David telling him about fishing for lobsters or herring.
3. Build a scene in a box that tells some part of this story. The following are some of the things you may want to show.
 - a) Fishing for herring.
 - b) Fishing for lobsters.
 - c) Thanksgiving dinner at the Pruitts' home.
 - d) The house with boughs around it.
4. Remember to look up the new words in your glossary. Make a list of all those used in this unit so far.

WINTER IN COURAGE COVE

Not long after the Thanksgiving holiday, the heavy rain came. It poured in torrents for days, with a heavy driving wind. Small boats were torn from their *moorings*. Some of the men gave up going out. Others made the rounds of their lobster traps in spite of the weather. They came home drenched and tired out. Finally, the winds changed, the rain stopped, and the temperature dropped. Winter had come to stay.

Evenings with the Neighbors

Life in Courage Cove was gayer in the winter than in the summer. The neighbors met at one another's homes for social evenings. The men came together to smoke and talk or to play checkers. The women knitted or quilted as they talked.

There was music, too, on such evenings. Everyone gathered round an old piano or a small organ for a sing-song. Sometimes one of the men played a *guitar* or *harmonica*. They liked to sing the old hymns and songs of the sea.

The older men were particularly fond of singing the old sea *chanteys*. Sailors in the old days used to sing these chanteys

as they pulled and hauled on the ropes.

Besides the music on such social evenings, there was plenty to eat. Pies, doughnuts, cakes, tarts, and cookies aplenty went the rounds. There were jugs of sweet apple cider, too.

The Great Storm

During the middle of January came the big storm of the season. It came on the heels of a cold wave, when the water had frozen over as far out as three or four miles from shore. Great piles of frozen spray were built up along the shore. Then the wind rose, a typical "*nor'easter*." No one dreamed of going out to fish through the ice. The children were not able to go to school. Everyone worried for fear some boats might have become lost at sea or men be stranded without food on some lonely island along the coast.

On the third night, Chris was awakened by voices and the sound of hurrying feet. He came down blinking into the kitchen, where his father was pulling on his sea boots. His mother was making coffee, and Aunt Emmie was busy

During the cold winters the fishing boats are often thickly crusted with ice. It is very difficult and dangerous to work on ships that are covered with ice. In the winter many fishermen are lost while sailing the bitter cold waters of the North Atlantic.

A. C. Shelton



filling and trimming two huge lanterns.

"What's the matter?" Chris asked.

"They say there's a boat in trouble just beyond Bear Island. Bob Newcombe just stopped and asked your father to go down to the shore," replied Mrs. Pruitt, pouring some coffee into a tin pail.

"May I go, Pa?" asked Chris. "I wouldn't get in the way, honest."

Seth nodded.

Chris had got into his *slicker* and *sou'wester* before his father had finished drinking his coffee. Carrying flashlights, lanterns, the coffee pail, and a coil of rope, they went out into the wild night.

The first blast of wind almost took Chris off his feet. After that he kept behind his father and bent his body in order to meet the fury of the wind. The two made their way down along the curve of the cove, taking all the short cuts possible. They found at least fifty people, men, women and boys already on the *cliff* ahead of them. In times of trouble, everybody was ready to offer aid, prayers, and good advice.

"What's up?" shouted Seth above the roar of the water.

"They've spotted a boat out there. No one knows who she is. Caleb has phoned the *Coast Guard*, but the boat will be on the rocks long before help can reach them, the way this storm is going."

"Never saw anything like it since the night the steamer 'Portland' went down," said one old man. "Two hundred and fifty-seven souls went down with her."

In the inky blackness little could be seen. Only occasionally the tiny light of a ship far out could be seen rising and falling with the waves.

There was nothing the watchers on the shore could do except wave lanterns so that those on the boat might at least know people were waiting to help them. A stretch of thick ice lay between the shore and the open sea. The men could have gone out on this, but their lanterns were more easily seen from high up on the shore.

"She's headed this way," shouted someone. "See! Her port and starboard lights show now."

"Whoever that is, is crazy," called out Seth. "They can't cut through this ice, and they'll be ground to bits by it."

The boat was indeed drawing nearer and nearer. All eyes strained, and every possible light was turned upon her.

Suddenly some one cried, "It's the 'Sunbeam'! See the big white cross painted on her!"

The "Sunbeam"

The "Sunbeam" is the *mercy ship* of the Maine Sea Coast Missionary Society. She is a powerful seventy-two foot vessel that travels up and down the coast on errands of mercy. She was built to cut through ice, and has rescued many a seaman stranded on some lonely island, and has brought food, medicine, and supplies to thousands of needy islanders.

During the summer, the "Sunbeam" takes the island children on trips to the mainland. In the winter, the ship makes her rounds and brings them Christmas gifts. She also takes the poor people food, medicine, and clothing. Everyone was grateful for the "Sunbeam."

"If she's putting in here, she probably has someone sick on board," said Caleb.

"We'd better go down to the store and be ready for 'em."

As soon as it became clear that the "Sunbeam" was going to cut her way through the ice into Courage Cove, everyone left the shore and started back to the wharf. In the excitement they forgot the sting of the cold. They waited tensely as the "Sunbeam" drew nearer and nearer the wharf.

"Ahoy!" sang out the skipper. "Can you send out a crew? I have a sick woman on board. Watch out for the breaking ice."

Chris watched breathlessly while the men went out on the ice, feeling their way and holding on to a stout rope made fast to the wharf. A half hour passed before the sick woman was lowered in a blanket from the deck and carried across the ice to the wharf.

In a few minutes she was resting comfortably on a bed in a room behind the store, and a doctor was on his way from the next village.

The "Sunbeam" is a very useful ship to the fishing people of the Maine coast. She sails up and down the coast and among the islands, helping people in many ways. In winter she brings doctors to sick persons through the ice-covered waters; in summer she carries crowds of island children on picnic trips.

A. C. Shelton



Things to Talk About

1. Which would you rather spend in Courage Cove—a winter or a summer? Why?
2. Tell how you like to spend your winter evenings. What part of the evening in Courage Cove would you like best?
3. Have you ever sung a hymn? How does a sea chantey differ from other songs? Have you ever sung as you worked? Why?
4. How did Mrs. Pruitt and Aunt Emmie help the men the night of the storm?
5. What are the port lights of a ship? What are the starboard lights?
6. What is the work of the mercy ship? What do you think of the crew of the "Sunbeam"? What do you think of the people in Courage Cove?

Things to Do

1. Have a sing-song in your schoolroom like the one the people of Courage Cove held.
2. Try to find another story that tells of a brave rescue during a storm and read or tell it to the class.
3. Read the conversation that took place out on the cliff the night of the big storm. Choose someone to read the part of each speaker.

CHRIS HELPS WITH THE SPRING WORK

After the exciting night of the big storm the long winter dragged on. Other storms not quite so severe came and went. Gradually the temperature grew milder. The giant masses of frozen spray on the beach began to melt away. The ice cracked and floated out to sea in great jagged cakes.

Spring comes late along this coast. But already one could tell that spring was on the way. Once more the men were able to go out in their boats to fish and to set their lobster pots.

It's a Mackerel Run

Chris was twelve now, the age when many boys used to take to the sea. He still had several years of school ahead of him. But he knew that from now on there would be more work than play for him. He learned this one night toward the end of June when his father shook him out of his sleep about midnight.

"Get dressed," his father said. "The mackerel are *running*!"

Chris hurried into his clothes as fast as he could in the dark of night. Though it was spring, the air was sharp and bit-

ing. He shivered, partly with cold, partly with excitement. His father had not asked him if he wanted to see the *run*. He had wakened him to help, to take part in it!

Every year the beautiful blue-and-green mackerel swarmed into the shallow waters of the coast. They came in great numbers. For a short time, the sea was almost solid with fish. Then, overnight, every mackerel disappeared and was seen no more along this coast until the following summer. Their coming this way was called a run. Naturally, everyone got out in every kind of boat, and scooped in as many as possible. Tiny craft went out with small dip-nets. Larger boats went out with bigger nets. Every craft came back weighted down with fish. While the mackerel were running, there was no trick to catching them. You had only to set the net and haul them in!

Chris worked until his arms ached and he thought his back would break. On the way back, he looked with pride at the great heap of fish piled up in the schooner. He wondered where they would



Courtesy Fishing Gazette

Anyone can be a fisherman when the mackerel run is on. In the spring these fish travel in great schools. The largest of these schools are about half a mile wide and twenty miles long. One needs only to dip a net in the water to catch the beautiful striped fish. Mackerel are netted on moonless nights when they can be seen gleaming in the water. They are also taken in the early morning or early evening, when they stick their heads out of the water. The fishermen gather them into the boats with nets. Then a large part of the mackerel is delivered to the canning factory, where they are cleaned and cooked and canned. There are a great many canning factories like this along the New England coast. Mackerel are also sold fresh and frozen and salted.

James Sawders



When a ship needs painting or repairing below its water line, it is towed into a dry dock; then braces are erected to hold the boat right side up. Dry docks are built so that the water can be pumped out while the boat is being repaired and painted.

James Sawders



all go! Most of the mackerel, he knew, would be rushed to the canneries. Some would be dried with salt, so they would not spoil, and would be shipped all over the country. Others would be sold to near-by homes and stores. And many,

he was sure, would find their way to the Pruitt table. Broiled fresh mackerel, sizzling hot, dripping with butter, and cooked to a turn as only Aunt Emmie knew how! The very thought of it set Chris's mouth to watering.

Fish are being unloaded from a fishing trawler at the pier. The bucket looks as though it contained more ice than fish. There really is about half of each. When fish are stored away in the hold of the trawler, the fishermen pack in a ton of ice with every ton of fish. This prevents the fish from spoiling before the trawler reaches the home port.

James Sawders





Fishermen spend much time repairing their nets. The heavy catches of fish make holes in the nets that must be repaired before they are used again.

Free-Lance Photographers Guild

After the boat had docked, there was still much work to be done. The fish must be taken off and the nets cared for. Nets are expensive. To make them last as long as possible, they have to be dried and mended after each fishing trip. In spite of his aching arms and back, Chris tried to do his fair share of the work. He was a real fisherman now, he remembered, and not just a boy who had come along for the fun.

Seth Pruitt, too, was working away with the best of them. He was not too busy, however, to notice how tired his youngest son looked.

Every fishing village has racks or reels like these where the fish nets are hung in the sun to dry after a fishing trip. These racks can be turned from time to time so that every part of the net will be dried. Big nets like these are used to take cod, haddock, and other fish found along this coast.

James Sawders



"Here, Chris," he said, "I guess you've done your share for today. Fill up this bucket with mackerel and take 'em along home. Then dinner can be ready by the time I get there!"

In a few minutes Chris started off with a heavy bucket but a light heart. He could understand better now why his father and all the Pruitts before him had followed the sea in spite of its hardships and dangers! He would do the same. Of course, later on he might want to join one of those big trawlers out of Portland that fished in the modern way Bill told about. Or perhaps he would join the Coast Guard, or be a captain on a *light-ship*. Whatever he became, he was quite sure now that he belonged to the sea, and the sea belonged to him.

Things to Talk About

1. How do we know that Chris has had a birthday since we became acquainted with him?
2. Why do you suppose Chris was so excited when his father called him to go to the mackerel run?
3. Do you think *mackerel run* is a good title for the coming of the mackerel? Why or why not?
4. What are the colors of the mackerel? Tell about the colors of other fish that you have seen.
5. Which of the kinds of fishing you have read about in this story would you rather do?

Things to Do

1. Write a paragraph that tells what you think Chris should do when he grows up. Tell the reasons for your choice.
2. Carve fish from soap or model them from clay. Make as many kinds as you can.
3. Draw a picture story of some part of this unit.



Keystone View

Lightships warn seamen of dangers at places where lighthouses cannot be built. These ships carry warning lights, and they also have foghorns and radio beacons to guide ships through the fog.

4. Write a story about the person in Courage Cove that you like best. Tell why you like that person.
5. Words that are made by putting two words together are called compound words. Try to find some in this unit.
6. Play this matching game. Find the words in the second column that tell about the words in the first column.

<i>sea horse</i>	live on fish and sea animals
<i>sea anemones</i>	live in shells of other animals
<i>jelly fish</i>	cling to rocks
<i>hermit crabs</i>	cling to bottoms of old boats
<i>lady crab</i>	blue-and-green fish
<i>limpets</i>	clings to seaweed
<i>barnacles</i>	look like a flower
<i>mackerel</i>	eyes sticking out of sand
<i>herring gulls</i>	looks like jelly

OTHER SEACOAST REGIONS

Before the first settlers came to New England, fishermen from Europe had been coming to the very *fishing grounds* where Chris went fishing with the men. These fishermen filled their boats, took the fish back to Europe, and sold them.

The early settlers in this region were fishermen too. They used some of the fish that they caught for food, but they soon began sending shiploads away to be sold. Their sons and grandsons became fishermen also. Father and son have followed the fisherman's life all through the years.

Fish are found along all the seacoasts of the world, but fishing is more important along some coasts than others. One reason is that some waters contain more food for fish than others. Another reason is that fishermen along some coasts have better markets for the fish they catch than fishermen along other coasts. It is so hot along some coasts that fish spoil very quickly. And in some regions fishing is the easiest way to make a living.

The early New England fishermen had several reasons for turning to the sea for a living. They found good fishing grounds near them, and they could sell the fish that they did not use. But they also found that the soil near the coast was too thin and too rocky for good farming. And the dangers of the inland region kept many of the people from going farther west.

In the near-by forests there was plenty of wood for building boats. The fishermen needed boats in their work, and they needed boats to ship their fish to other countries. So shipbuilding also became important in New England.

Fishing Regions of North America

Northeast of New England is another seacoast that is famous for its fine fishing. This is the southeastern coast of Canada. The people along this coast have been fishermen for hundreds of years too. And they fish in the same waters as the New England fishermen.

These Canadian fishermen catch fish in much the same way as their neighbors along the New England coast. These men are hauling in a gill net. This is a flat net that hangs down into the water. Fish can swim into the net but they cannot back out because the meshes catch their gills.

Kaufmann & Fabry





James Sawders

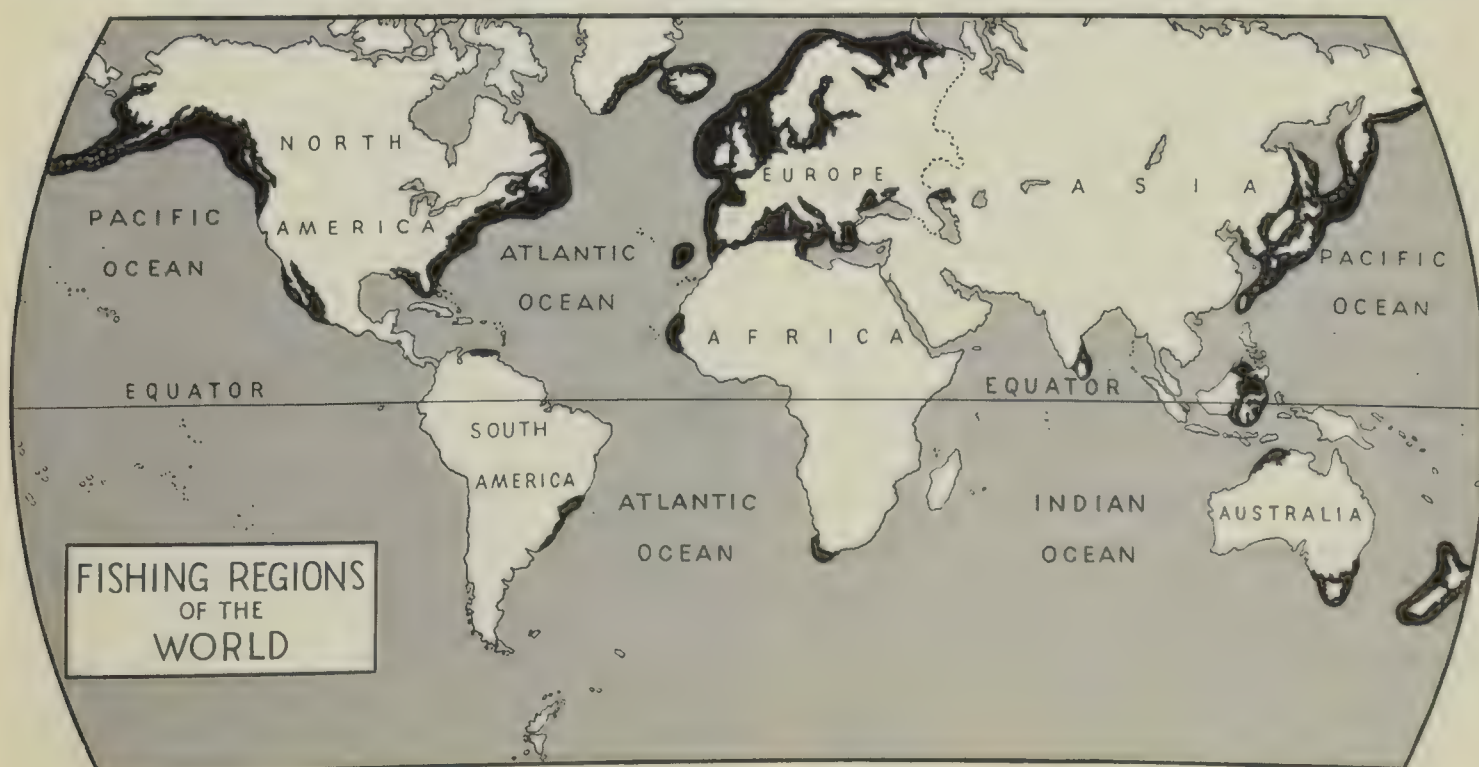
Many of the oysters eaten in the United States are raised by oyster growers. The oyster grower uses stakes to mark off beds in shallow places along the shore. He covers the bottom of the beds with shells to which the baby oysters can attach themselves. Young oysters are sometimes scattered over the beds. Here they can grow to full size, for there is less danger from sea animals that like to eat young oysters.

There is some fishing along all the coasts of our own country. Just south of New England many people make their living by fishing for *oysters*. More oysters are taken from the oyster beds of our eastern seacoast than from all the

other oyster beds of the world put together. The oysters are packed in ice or in cans and shipped to all parts of our own country and to other countries.

Along part of the western coast of North America, salmon fishing is impor-

The dark parts of this map show the chief salt-water fishing grounds of the world. Near which continents are the largest fishing regions found? Where are the principal fishing regions in North America?



tant. Salmon spend most of their lives in the ocean, but when they are four or five years old they swim far up the rivers to lay their eggs. Canning factories near the mouths of these rivers put up millions of dollars worth of salmon every year.

China and Japan

Fishing is very important in both China and *Japan*. We learned that every bit of farm land in China must be used to provide food for all the people living there. The same thing is true in Japan. And the people in both these countries get much of their food from the ocean.

Japan is made up of many islands. There are many mountains on the islands, so the farms are smaller than if all of the land were level. There are many fish in the ocean around these islands. There are good fishing grounds between the Japanese islands and China.

The fishermen of China usually fish in the waters that are near their land. The Japanese fish all around their islands, and some of them go many miles from home to fish.

Fishing Grounds of Europe

If you will look at the map on page 205, you will see that there are good fishing grounds near all the seacoasts of Europe. Many people work as fishermen along these coasts.

Along the south coast fishermen catch many small fish, which are canned as sardines. They also fish for *tuna* and other kinds of large fish. And they gather oysters from the oyster beds.

The islands on the western edge of Europe are called the *British Isles*. Can you find them on the map?

Millions of people live on these is-

lands. Some of the land is mountainous and unsuited to farming. The farmers cannot raise enough food for all of the people, so many fish are caught for food. There are fishermen along all the coasts of the British Isles.

Northeast of the British Isles is a very large peninsula. The northwestern side of this peninsula is called *Norway*.

Move your pencil along the coast of Norway. Notice the many bays and inlets along the coast. In Norway these bays have a special name. They are called *fjords*.

The fjords are narrow and deep—so deep that large ships can travel on them. The longest of them are about 100 miles long. This means that Norway has many, many miles of seacoast. If you could travel along all the coast of Norway, you would travel about 12,000 miles. That is almost as far as you would travel if you went half way round the earth at the equator.

The Norwegian fjords make fine fishing grounds. There are other reasons, too, why many of the people of Norway became fishermen. Mountains rise steeply from the coasts, and the shores along many of the fjords are almost as straight as walls. Is it easy to farm the steep slopes of mountainsides?

In many places along the coast not enough level land can be found to build houses. But towns and villages have been built on the few level spots that are large enough. Many of the people living in these towns are fishermen or sailors. The fjords make fine harbors for the fishing boats and for visiting ships.

Much of the soil of Norway is thin, like the soil of New England. Of course,

farmers cannot grow as good crops in thin soil as in deep, rich soil. That is another reason why many of the people of Norway, like the people of New England, would rather be fishermen than farmers.

The people of Norway discovered in the early days, too, that there are fine feeding grounds for fish in the oceans. Great schools of cod, herring, mackerel, and the other kinds of fish that are found near the New England coast are also found along the coast of Norway. The ways of catching and caring for these fish are about the same as in New England, too.

The forests of Norway have always furnished wood for boats. For hundreds of years the people of this region have been known as brave sailors. Long before Columbus discovered America, some

Instead of bringing fish to the canneries, some fishermen take canning factories to the fish. These Japanese fishermen are returning with their catch to a "floating cannery" ship.

J.P.L.—Black Star



Black Star

Without fish the Japanese people would have to live chiefly on vegetables and rice. They catch many fish near their own shores, but Japanese fishermen often fish far away from home.

of them sailed across the Atlantic Ocean. We believe that they even sailed along the coast of North America. These early sailors were called *Vikings*.

The ships of Norway now travel over all the world. They carry fish and other things that they have to sell to people of other countries. And they carry goods for the people of many other countries.

Fishing All Over the World

Have you noticed that the best fishing regions in the oceans are far distant from the equator? Many of the best feeding grounds are north of the equator. There the waters are more shallow than they are in most parts of the ocean. And the fish travel in schools. This is the reason why many of the same kind of fish, such as cod or mackerel, may be caught at one time in a net.



Photos: Kaufmann & Fabry & Courtesy Columbia River Packer's Assn.

The Story of Salmon

Salmon is one of the world's most valuable fish. Most of the salmon we eat live in the waters of the Pacific Ocean off the coast of North America. Salmon are hatched in fresh-water rivers. When they are nearly two years old, they find their way

down to the sea. Here they live for another two or three years. Then the time comes for them to return to the streams where they were hatched. They go back to lay their eggs. No one knows how salmon find their way back, but they always return



The fish that you have read about in this unit all live in the salt water of the oceans. The waters of all of the oceans are salty, but the waters of rivers and of most lakes are fresh. Many kinds of fish live in fresh water.

There are many lakes and rivers in different parts of the world where fish are caught for food. Five large lakes between the United States and Canada are called the *Great Lakes*. Many fresh-water fish are caught in the Great Lakes each year.

The supply of fresh-water fish would soon be used up if government hatcheries did not turn millions of young fish loose in the lakes and rivers every year. The hatcheries raise the baby fish from eggs and keep them in tanks and pools until they are big enough to turn loose.

Salmon (Continued)

upstream to the same river from which they came. Fish marked before starting to sea have been caught years later in the same stream.

Their trip up the rivers is called the "salmon run." The strong, gamy fish leap waterfalls and swim rapids in their travels upstream. They lay their eggs in shallow nests which they hollow out in the bed of the stream. The time during which the salmon lay their eggs is called the "spawning season." The fish are weak and flabby after their long journey from the ocean and are not fit to eat after spawning. Most of them soon die.



It is during the "salmon run," while the fish are fighting their way up the rivers, that the fishermen take the huge catch of salmon. They put their traps in places where the salmon must pass. Soon they catch many thousands of the big silvery fish. After the salmon are taken from the traps, they are cleaned and cut up at the cannery. Then the slices are packed in cans. Salt is added, and the tops are put on. The cans of salmon are placed in huge tubelike containers and cooked with steam. Afterward the cans are cooled and packed in cases ready for shipment. The greater part of the salmon catch is sold in cans.

Photos: Courtesy Columbia River Packer's Assn.



Things to Talk About

1. Tell why fishing is much more important along some coasts than others.
2. Why do the people of China and Japan eat so much fish? The people of the British Isles?
3. Explain why Norway has so many miles of seacoast. Who were the first sailors from Norway? Why do you suppose the early people of Norway became sailors?
4. Tell about the fish that live in the salt water of the ocean part of the time, and in the fresh water of rivers part of the time.
5. What kinds of fresh-water fish have you eaten? Have you ever caught any of them?

Things to Do

1. Make a list of the ways in which New England and Norway are alike.
2. Make an *A, B, C* book about the things you learned from this unit. Write a sentence on each page and draw a picture about it. The sentences on the first three pages might be—
A is for anchor which holds a ship fast.
B is for buoy which warns sailors of danger.
C is for cod, a fish that is good to eat.
3. Make a list of all the ways you know of getting fish ready to be sold after they are caught.

BOOKS TO ENJOY

CRESPI. *A Fish Story*. Garden City Pub. Co., New York.

An easy, funny picture and story book that tells about Jacqueline's fishing trip.

FARRINGTON. *Bill, The Broadbill Swordfish*. Coward-McCann, New York.

Bill, the broadbill swordfish, swam across the ocean with his family. He had many adventures with the suckerfish, the shark, and other fish.

HADER. *Tommy Thatcher Goes to Sea*. The Macmillan Co., New York.

Tommy wanted to go to sea, and his wish came true when he went to Maine to live with his grandparents.

HUNTINGTON. *Let's Go to the Seashore*. Doubleday Doran & Co., New York.

This book tells about sand dollars, starfish, sea anemones, and other sea creatures. There are many pictures in the book.

MELLEN. *Twenty Little Fishes*. Julian Messner, Inc., New York.

Here are stories and pictures of twenty fish that may be seen at the seashore, in a pond, or in an aquarium.

NORLING and NORLING. *Pogo's Fishing Trip*. Henry Holt & Co., New York.

Pogo took a fish bowl with him when he went fishing for salmon, but he had a great surprise.

PARKER. *Fishes*. Row Peterson & Co., Evanston, Illinois.

This book tells many things about fish and other sea animals and shows pictures of many of them.

PATCH and FENTON. *Holiday Shore*. The Macmillan Co., New York.

This easy book contains stories and pictures of the sea anemone, the starfish, the sea horse, and of many other sea creatures and birds that live along the shore.

ROBINSON. *At the Seashore*. The Macmillan Co., New York.

Ann and Bill paddle in the surf, feed sea gulls, collect shells, and watch the starfish, crabs, barnacles, and other sea creatures.

SCHRAM. *Olaf, Lofoten Fisherman*. Longmans, Green & Co., New York.

Olaf went fishing for cod near the coast of Norway.

SMITH. *World Folks*. John C. Winston Co., Philadelphia.

Some Peoples of the Seacoast—New England, Newfoundland, Norway—Pp. 240-258.

STULL and HATCH. *Journeys Through Many Lands*. Allyn & Bacon, Boston.

The Land of the Vikings—Pp. 108-115.

TOUSEY. *Fisherman Tommy*. Houghton Mifflin & Co., Boston.

Tommy, who lived in a city, visited his uncle on an island in the Atlantic Ocean. He went lobster fishing, dug clams, went sword fishing, and opened up a fish market of his own.



6. *Nancy's Adventures in Eskimo Land*

THE little trading steamer inched along through the cold waters of the *Bering Strait* on its way up the coast of *Alaska*. Nancy Monroe stood on its deck, eagerly watching the shore for some sign that her long voyage was nearing an end.

"Are we almost there, Mother? How much longer will it take?"

"Not much longer, Nancy," said her mother, smiling. "We'll see your Daddy very soon now."

Nancy had made friends on the boat with a missionary who was on his way to the *Arctic* to work among the *Eskimos*. Standing beside Nancy and her mother at the rail, he also smiled.

"It has been a long trip," he said. "And this ship isn't so nice as the big white steamship that you spent two weeks on coming from *Seattle* to *Nome*. But if you will keep looking, you'll soon see *Stevens Point*."

NANCY'S ARRIVAL IN ALASKA

"What a barren-looking country this is," said Mrs. Monroe. "What a flat, treeless shore!"

"All that low, flat land without any trees along the shore is called *tundra*. It stretches for miles and miles along this part of the Alaskan coast and back inland as far as you can see."

"Br-r-r! It's cold!" shivered Nancy, snuggling deep into the fur collar of her heavy winter coat. "At home we never have such cold weather in September. We must be near the North Pole!"

The missionary laughed. "It's cold, I must admit, but you're more than 1500 miles away from the North Pole."

"What kind of people are the Eskimos who live here? Are there many children my age?" asked Nancy with interest.

"Yes, there are. You'll have enough playmates to keep you busy."

"I'll bet Daddy knows all about the Eskimos," Nancy said, proudly. "Remember, I told you Daddy's a professor at a university in the United States. He came up here last year to study about the people and the animals that lived in Alaska thousands of years ago. He's going to stay another year, so Mother and I came to stay with him."

As she spoke, Nancy's eyes remained glued on the tundra. "Look!" she cried,



Ships carrying freight and passengers travel to the frozen North only during the short summer season. Even then few ships go to this part of Alaska, because little freight is shipped there and few people travel to this lonely region. In the winter most ships cannot sail in these waters because of the ice.

Lomen Bros.

excitedly. "There's Stevens Point! I can see an American flag going up over that big white house! Look at the people running down to the beach. Maybe Daddy's with them!"

Sure enough, an Eskimo village was now in plain sight ahead of them. The settlement was on a sharp point of land, *jutting* out into the sea. The water around it was so shallow that the steamer could not come close to shore. As Nancy and her mother watched, some men launched a couple of small open boats and paddled toward the trading steamer.

Nome is the most important city in western Alaska. It is in the center of a gold-mining district. Nome began as a mining camp, but today it has modern business buildings, wide streets, electricity, and telephone service. Many Eskimos visit Nome. Some of them, dressed in their fur costumes, are doing a dance along the waterfront.

Burton Holmes—Ewing Galloway





W. L. Highton

This is part of an Eskimo village near Nome. Eskimos that live near towns often have shacks like these, made of wood. Notice the fish hung out to dry on racks. The racks are high to protect the fish from dogs and prowling animals. The flat land shown in this view is called the tundra. Do you see any trees?

Welcome to Stevens Point

"Mother, I see Daddy!" called Nancy. "Look! He's dressed just like the Eskimos!" She put both hands to her mouth, and shouted, "Hullo-oo-o, Daddy!"

Soon Professor Monroe was hugging his wife and ten-year-old daughter. The Eskimo boat, or *umiak*, lay alongside the steamer. A ladder was hooked over the deck, and strong hands helped Mrs. Monroe and Nancy into the smaller boat. Professor Monroe saw that their trunks and boxes were loaded into the other *umiak*.

The arrival of a white woman and child was a great event in this lonely

village. All the people of the settlement turned out to greet the visitors. On all sides were oily brown faces, with wide mouths open in friendly grins. Everyone spoke at once in a strange language. Nancy felt a tug on her braids and found two fat Eskimo women examining them with delight. Never before had they seen long, golden hair! A small round face with bright black eyes peeked over the shoulder of one of the women. It was a cute Eskimo baby tucked into the hood on the back of his mother's jacket.

Professor Monroe introduced a friendly, middle-aged white couple. They were Mr. and Mrs. Drury, the teachers sent there by the United States government.



The Monroe's New Home

"Your house is ready, Mrs. Monroe," said Mr. Drury. "It's one that belonged to a trader who was here until a couple of years ago. Except for the school-house, his was the only white man's building in the village."

"I'm afraid you'll find it very plain," Mrs. Drury said, "but at least it's clean. I had some of the Eskimo girls give it a good cleaning yesterday."

They reached the small wooden house. The Eskimos trailed after them, and looked in through the windows. The



The house Nancy lived in was not nearly so comfortable as her home in the United States, but it was much better than the Eskimos' igloos.

Courtesy Fish and Wildlife Service

dingy gray house had two rooms. The front room had been the trading post, and the white trader had lived in the back room. Each room had a stove and two glass windows. The Monroes decided that a storeroom would have to be built on at the back. The small room would be the parents' bedroom. The front room would be living room, dining room, and kitchen, with a sleeping bunk for Nancy.

"You will both need Eskimo clothing," Professor Monroe said to his family the next day. "Although it's warm and waterproof, it doesn't weigh much. I am going to select the skins myself and have one of the Eskimo women, *Argteek*, come here to make the clothes for you. Nancy, we'll go over and see her right now."

A Trip Through the Village

Nancy was curious about everything she saw in the village. It was made up of about fifty long, low huts, called *igloos*. Each had a small, square entrance and a long, narrow passageway leading to a single room at the back. The sides of most of the igloos were banked with sod cut from the tundra.

"That's to keep out the snow and wind," explained Professor Monroe. "Even when it is forty and fifty degrees below zero, an igloo can be warm and comfortable inside."

"What do they use to build their houses?" asked Nancy.

These three young Eskimo boys are dressed in their "spring suits." They do not bundle up so much as in winter, but they still wear furs.

Ewing Galloway

"Anything they can lay their hands on. Even old gasoline and kerosene cans. Those two white upright posts by that entrance over there are the ribs of a whale. They also use *driftwood* when they can get it. Driftwood is scraps of wood washed up on the beach by the waves. Sometimes logs float down rivers from inland forests and are swept out to sea. Later they are washed up on the shore. Last winter when wood was scarce, some of the Eskimos here traveled for miles just to find a few sticks of driftwood."

"There is an igloo made of planks," pointed out Nancy. "How could they get lumber when there are no trees in this region?"

"From shipwrecks," replied her father. "The Eskimos may keep anything they get from ships that have been caught in

the ice and abandoned by their crews. As soon as word comes that a ship has been wrecked, the Eskimos go running like children to a fire. What they want most of all is wood, metal, and tools. Well, here is Argteek's igloo. Duck your head."

A Visit to Argteek's Igloo

That was good advice. The doorway of the igloo was so low that even Nancy had to stoop as she went in. Her father bent almost double. Inside the igloo, everything was pitch dark. They fumbled their way along the entrance, which appeared to be a storeroom also. At last they reached a heavy curtain made of skins. This led to another passageway, long and dark and lower than the first. Finally they reached a rough driftwood door which opened into the one room of the igloo.

This is the entrance to an Eskimo igloo. The Eskimos use this part of their house as a storeroom. Notice the furs piled along the sides. There are snowshoes hanging on the wall to the right. Soon you will read about the way they are used. Do you remember the picture of the outside of an igloo on page 3? Maybe you would like to look at it again now that you are reading about the Eskimos.

James Sawyers



This room was about twelve feet wide and fourteen feet long. There was no real furniture—just a sort of raised bunk on which the father slept, a small platform which took the place of a table, and a small iron stove. There were no chairs or cupboards. Tools hung on pegs along the walls and piles of supplies and possessions were heaped in corners. The sloping roof was lined inside with large, heavy skins. A small square of thin material sewed over an opening in the roof let in a little light but one could not see through it.

A large old woman was sitting on the floor with her back against the wall. Her legs were stretched out straight in front of her. She was working on some skins. Another woman beside her was busily chewing a piece of leather with her strong, white teeth. A couple of small children were crawling along the dirty, driftwood floor. A very old man sat dozing against another wall. No one got up or spoke when Nancy and her father came in. The women just grinned and went on with their work.

Professor Monroe explained quietly to Nancy, "Only the children can speak English. The grownups try to learn it, but most of them are too old. However, they can usually understand what we say."

With many signs and much talking, he was able to make the old woman understand what he wanted. He said she was the "best maker of clothes" in the whole settlement. The old woman grinned from ear to ear. To be called best at anything makes any Eskimo proud. Would she and her daughter-in-law please make a complete outfit of win-

ter clothing for his wife and daughter? He would pay well.

The old woman nodded happily. The professor said there was one condition: The work must be done in the white man's home. At first, the woman shook her head. She wanted to work in her own igloo. But Professor Monroe was firm. Still the old woman refused. The white man turned to go. Argteek could not bear to lose the chance to earn the money. "I do. I do," she said. Mr. Monroe smiled and led Nancy out of the hot room, with its strong odor of unwashed bodies, fish oil, and stale food.

"Whew!" said Nancy when they were once more outside. "I want some fresh air! Did you ever see such dirt, Father?"

Her father just smiled. "You will get used to it, my dear! After a year here, I have come to the conclusion that most Eskimos do the best they can. Most of them are kind, honest, and truthful. They have not the means of keeping clean. They have been living much this way for hundreds of years. You will find we have a great deal to learn from them. No white man has ever succeeded in living up here in the Arctic without following many of their ways of living, dressing, eating, and traveling. Just the same," he added, "I want your clothes made where I can be sure they will be reasonably clean!"

Nancy's New Clothes

In a few days, old Argteek and her daughter-in-law started working on the new clothes. The skins from which they were to be made had already been dried, scraped, and rubbed until they were as soft as velvet. For thread, the women used the sinews of reindeer which they

This woman's clothes are like the clothes Argteek made for Nancy. Do you see the baby? What other places have you read about where the mothers carry their babies on their backs?

Lomen Bros.

had chewed and rubbed against their cheeks until the sinews were soft.

Now and then the women would hold up their work for Mrs. Monroe and Nancy to see. Then they would grin and go back to sewing again.

The younger woman was working on the shoes, or *mukluks*. First she placed Nancy's foot on a piece of sealskin and drew a line around it. Then she cut the leather with her knife. Next she chewed and stretched the tough leather until it was beautifully curved and shaped across the front and back. Finally she stitched tops of lighter sealskin onto the soles and trimmed them with reindeerskin.

As soon as her clothes were finished, Nancy tried them on and danced about the room for her mother and Mrs. Drury to admire them. First there was a pair of sealskin trousers, worked until they were as soft as wool. Then came the *parka*. This was a loose, pull-over coat that came down to the knees. It was made of brown-and-white reindeerskin. Attached to the parka was a reindeer hood. Around the opening of the hood was a narrow band of wolverine fur and a deep fringe of wolfskin.

The rest of the costume was made up of the mukluks, some stockings made from the skins of young reindeer, or fawns, and a pair of squirrel mittens.

Nancy did not get her winter clothes any too soon. The days had been growing colder all the time. Ice was beginning to form along the shore. Soon the entire sea would be one vast sheet of ice!



Things to Talk About

1. Would you like to live on the tundra? Why or why not?
2. Explain why the Eskimos build their houses of the materials that they do. Remember that the Boros, the Navahos, and the people of Central America use the materials that are easiest to get and that are best suited to the regions where they live. In which region do you think the houses are most comfortable? Why?
3. Why was Eskimo clothing better for Nancy than the winter clothing she had brought from home?

Things to Do

1. On a globe, trace Nancy's trip from Seattle to Nome. Trace an imaginary trip through Bering Strait to the northern part of Alaska. Write what you think a strait is, and then look in your glossary to see if you are right.
2. Make a complete outfit of Eskimo clothing for a doll. You may use cloth instead of leather if you wish. Dress the doll to look like Nancy in her new clothes.

THE REINDEER ROUNDUP

Overnight the weather turned cold, bringing a fall of deep, soft snow. The next morning Mr. Drury said, "In a few days I must travel inland. It is now time to round up the reindeer. I must see that the Eskimos take care of everything."

"Can't the reindeer take care of themselves?" asked Nancy.

"To get the best results with them, reindeer must be herded just like sheep or cattle," said Mr. Drury. "The reindeer are very important to the Eskimos. They furnish them with food and clothing, and are often used to pull sleds. Maybe you'd like to hear about the way the reindeer first came to this region."

"Oh, yes," said Nancy. "I want to know all about them."

The Story of the Reindeer

"Well," Mr. Drury began, "the story of the reindeer is part of the history of this region. Long, long ago, before white men came to this part of the world, the Eskimos could get along if they had only these three animals to supply their needs—the whale, the seal, and the walrus. They also ate berries, fish, and certain small animals. They used driftwood much as they do now. But the whale, seal, and walrus provided most of their clothing, fuel, and light. As long as he had these, the Eskimo could live and keep well.

"Then the white men came. They soon killed off so many whales, seals, and walruses that before long the Eskimos began to starve. To save them,

The Eskimos' reindeer travel in herds, like sheep and goats and cattle. The richest men among the Eskimos are those with the largest herds. Looking down at a herd of reindeer after a roundup would be like looking down at a forest, for the reindeer's antlers look like branches of trees.

Courtesy U.S. Indian Service



the United States government decided to bring in reindeer from *Siberia*, which is a cold region in northern Asia. The government gave forty reindeer to every Eskimo man and boy who would promise to take good care of them. The government even brought in men who understood the ways of the reindeer to show the Eskimos how they should care for them.

"And now," went on Mr. Drury, smiling at Nancy, "we come to the answer to your question. Yes, the reindeer could take care of themselves for a time, but not nearly so well as man can take care of them. If they were left alone for long, a great many reindeer would starve, many would be killed by wolves, and those that escaped death would wander far away. These are some of the reasons why the Eskimos must herd their reindeer just as men in other regions herd their cattle and sheep. When the herd is well cared for, it grows larger and larger, and the people have plenty to eat and wear.

"But usually the Eskimo does not enjoy the task of herding reindeer. His ancestors have always been hunters, making their living by gathering and capturing their food wherever they could find it. Today the Eskimo finds the work of caring for the reindeer very tiresome. And that is one of the reasons why the government sends men like me to live among the Eskimos—to show them how to care for the reindeer properly."

"What do the reindeer eat?" asked Nancy.

"Mostly moss. It grows all over the tundra and back among the foothills. The reindeer can paw through as much

as two feet of ice-crusted snow to get at the moss. During our short summer season the reindeer fatten up on grass and herbs. Then before the weather gets very cold again we have what is called a *roundup*. That is why I must go inland soon."

"Oh, Mr. Drury, may I go with you? Please! I won't be any trouble at all, really I won't," promised Nancy. "And I'll work as hard as the Eskimo women, if you'll only take me with you!"

Mr. Drury and Professor Monroe smiled. Then to Nancy's own great surprise, Mr. Drury agreed to take her along, and Nancy's father consented to let her go.

Nancy Sees the Roundup

They were to be gone several days. Before they left, Mr. Drury had to get things ready for the roundup. Some sort of fence or corral was needed to sort and count the deer. Since there was no wood for a corral, the teacher had sent some Eskimos ahead to build one out of blocks of ice. The herders had been gone for some time, rounding up the reindeer with the help of their dogs.

Early one morning, while it was still dark, Mrs. Monroe awakened Nancy and helped her get into her new Eskimo suit. Then she gave her a hot breakfast.

"Now, here is the thermos bottle full of hot cocoa," she explained. "It is for you to drink along the way. I've packed plenty of food and sent along your reindeer sleeping bag. Don't get in the way, and try to help as much as you can!"

Nancy promised and climbed into the loaded sled outside the schoolhouse. Two wiry little reindeer with wide spreading *antlers* were harnessed to the sled.



Courtesy U.S. Indian Service

Nancy rode over the snow in a sled like this. Reindeer are strong and can travel many miles a day over the frozen tundra, pulling heavy loads. These animals are protected from the arctic cold by a thick skin and two coats of hair—a long, coarse, outer coat, and a fine, woolly, inner coat.

Mr. Drury gave the signal, and off they went. The little reindeer's sturdy feet trotted swiftly over the snow. There was not enough snow yet to make the going smooth. Riding was bumpy and uncomfortable. Nancy was glad when they reached the reindeer camp.

Mr. Drury decided it was too late to start the roundup that day. He told the wife of his headman to take the little white girl into her tent and take good care of her. That night Nancy slept soundly, snug and cozy in her warm reindeer sleeping bag.

The next day right after breakfast the roundup began. There was a great deal

of noise and excitement, with everyone shouting and stamping about. As the herders arrived with the reindeer, other men drove them into the corral.

First each animal had its ears examined to see to whom it belonged. Every owner had his own way of notching the ears of his herd.

The reindeer born since the last roundup did not have any marks in their ears. These were divided fairly among the Eskimos. The owners of the largest herds received the most young deer, and those with the smallest herds were given the fewest. Each owner then notched the young deer with his own mark.

Reindeer in Alaska are herded much as cattle are herded in other countries. When roundup time comes, the reindeer are driven toward the corral by groups of herders. Reindeer are usually tame and gentle, and can be herded into a corral by several men holding a long strip of burlap between them so the reindeer will not break through.

Courtesy U.S. Indian Service



Mr. Drury's Work

After all the reindeer had been sorted, counted, and marked, Mr. Drury helped the owners decide which of their animals were to be killed for food and clothing, and which were to be used for pulling sleds.

When all this had been done, the teacher talked to the Eskimos. "Your government has given you these animals to help you. You must do your part by taking good care of them. Never kill a deer to feed your dogs. You must catch fish for the dogs. Keep your traps set for wolves that would destroy the reindeer. Above all, keep your herds moving on to fresh pastures. If you let them eat all the moss on this land, it will take fifteen years for it to grow again. Then the reindeer will be without food and will starve. And without reindeer, you will starve, too."

The Eskimos grinned and bobbed their heads in agreement. But Mr. Drury shook his head. "Just as soon as anything interesting is going on in the village," he remarked to Nancy, "they will forget about their herds. It is hard to make herders out of hunters."

Things to Talk About

- 1. Tell why reindeer are so important to the Eskimos. Why were reindeer brought in from Siberia?
- 2. What did the government do for the Eskimos?
- 3. Why must reindeer be herded as cattle and sheep are? Why do the Eskimos sometimes neglect their herds?
- 4. What three animals supplied the needs of the Eskimos before white men went to Alaska? How were they used?
- 5. Tell the story of the roundup. Why did Mr. Drury say, "It is hard to make herders out of hunters"?

Things to Do

- 1. Copy this table and fill the blanks. Use the index if you need help.

MOST USEFUL PLANTS AND ANIMALS

	PLANTS	ANIMALS
Eskimos		
Fishermen of Courage Cove		
Corn-belt Farmers		
Navahos		
Indians of Central American Highlands		
Boros		

NANCY PLAYS AND EXPLORES

Soon after the roundup, the time came for school to open. Mr. and Mrs. Drury were busy getting ready for their pupils, young and old. The schoolhouse was just a room in the Drurys' home, where Mr. Drury had put up a blackboard and hung some maps and pictures. Most of the older Eskimos spoke little English, and few of them could read or write. The teachers were glad to help any grownup who wanted to come to school and learn.

The Drurys did not try to give the Eskimo children the same kind of education white children need. They wanted to teach them how to live as Eskimos. All the Eskimos really needed was just enough reading, writing, and arithmetic to enable them to count their herds, read letters, and do business with the white traders.

Mrs. Drury tried to teach the women and girls the best ways of cooking their



Nancy's Eskimo friends go to school in a room like this. These children wear fur clothing in their classroom. Their school is not so warm and comfortable as schools in the United States.

Lomen Bros.

own kinds of food and of keeping their homes and bodies clean. Mr. Drury conducted the church services on Sunday. He was also the doctor, nurse, and dentist for the Eskimo village.

Nancy did not go to school with the Eskimo children. She had brought along her schoolbooks and studied a little at home every day. Her father sometimes helped her with her lessons.

Eskimo Games

After school she played with the Eskimo girls. They were always laughing and full of fun, and they always played fairly. One of their favorite games was teeter-totter. Someone had given them a short wooden plank, which they placed over an old oil drum. Instead of sitting down on the ends of the planks, the two players stood up. When one player came down, the other bounced into the air. The trick was to land back on the board still standing up.

Another game the Eskimos liked was football. Girls played it more often than boys. Even middle-aged Eskimo women liked to play football. They played with a ball heavier than our football. It was stuffed with reindeer hair, instead of being filled with air.

The game was usually played by one person at a time. The idea was to kick the ball into the air with one's toe or

shin, then catch it and kick it again without letting it touch the ground. Each girl tried to see how many times she could do this without stopping. Sometimes four girls would play, using two balls and kicking them to each other.

The chief reason why the Eskimos play games is to train themselves to be quick and sure-footed. Being quick and sure-footed makes a great deal of difference when moving from one cake of ice to another or when jumping on and off moving dog sleds.

Eskimo Dogs

Nancy enjoyed the Eskimo games, but she was disappointed in the Eskimo dogs. They were very different from the dogs she knew. They were called *Malemutes* and were very fierce and wild. Instead of barking, they howled like wolves. Professor Monroe told his daughter that the Malemutes were often more wolf than dog. The Eskimos fed their dogs as little as possible; this kept them so fierce that they had to be chained when they were not working. They were chained far enough apart so they could not fight one another.

At first Nancy felt sorry for the big, wild-looking, thick-haired dogs, and tried to make friends with them. But after they bared their fangs and snarled fiercely at her, she decided to leave them alone.

"Perhaps I can get you a Malemute puppy in the spring," her father said. "If you are kind to him and feed him well, he will be safe and friendly. You

see, the Eskimos do not keep their dogs as pets, but as workers. Soft pet dogs would be no good to the Eskimos for sled dogs. By the way, Nancy," Professor Monroe went on, "tomorrow I am going to make a trip by dog sled nearly forty miles up the coast. I have heard of an old cave there that might contain some interesting things left by Eskimos long, long ago. If you would like to come along, you will get a chance to see Malemutes at work."

A Trip on a Dog Sled

In the morning, *Attoka*, Professor Monroe's native helper, brought around a long sled. It was made from a single twelve-foot cedar board brought in from *outside* and cut into thin strips. The wooden strips were firmly tied together with walrus-hide cords. Supplies were tied on the sled, so that even if it tipped over, nothing would be lost.

Then the dogs were brought out. One of them, trained from the time he was a puppy to be a leader, was harnessed in front. Behind the lead dog, the others were harnessed two by two on a long line.

Eskimo sled dogs are very strong and clever. They pull heavy loads for long distances, traveling at a good speed. Nothing stops these dogs, not even bitter cold weather and heavy snowstorms. It is thrilling to see a dog team racing over the snow-covered tundra, and even more fun to ride on the sled.

"If the dogs are too close together they will fight," *Attoka* explained.

There was much to do in getting ready for the trip. At last, however, everything was ready. Nancy sat on the back end of the sled. *Attoka* and the professor were to take turns in standing on the ends of the runners and directing the dogs, while the other ploughed alongside the sled in his *snowshoes*. These are frames of wood strung with cords that look almost like tennis rackets. Without snowshoes, it is impossible to get through the snow in the far North.

Eskimo dogs are not driven with reins. The driver calls out directions which the dogs are trained to obey. "Mush!" means to start; and from this word, traveling by dog sled or even on foot has come to be known as *mushing*.

Reindeer could not be used at this time of year because their food was generally covered too deeply by the snow. Anyway, Eskimos preferred dogs and could carry dried fish to feed them. All went well until one of the dogs saw a *polar hare*, loping across the tundra. The dogs went wild with excitement. In a moment,

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the sled was upset, Nancy landed in a snowbank, and away went the dogs.

Professor Monroe rescued Nancy, Attoka brought the dogs back, and they went on.

The rest of the trip was without much excitement. They arrived at the cave about twilight, and at once made their camp for the night.

Bright and early the next morning they began to search the cave. After an hour's digging they found a piece of ivory. It was yellow with age.

"This is interesting," said Professor Monroe. "I believe this ivory came from an animal that lived around here thousands of years ago. It was a very large animal, something like an elephant," he went on. "None of its kind remains alive in the world today. I know that some traces of these animals have been found in this region."

Professor Monroe gave the ivory to Attoka. During the long winter evenings the Eskimo would spend his time carving spearheads, knives, and other tools from it.

"Come," he said, "we must start back; it is a long trip. Get the dogs, Attoka. Nancy, you and I will attend to the sled."

Things to Talk About

1. Why wouldn't a school like yours be the best kind for the Eskimos? Why wouldn't theirs be the best kind for you?
2. Which of the games that Nancy played with the Eskimo children would you like best? How do they differ from your games of teeter-totter and football?
3. Which do you think you would enjoy most, a ride on a sled pulled by dogs or one pulled by a reindeer?
4. What is meant by *mushing*? Why is it called that?
5. Have you ever explored in a cave? If so, what did you find? What did Nancy and her father find?
6. How many uses do you know for ivory?

Things to Do

1. Pretend that you are visiting in Alaska. Write a letter to one of your friends telling about the most interesting thing that you have seen so far.
2. Collect pictures of as many kinds of dogs as you can. Try to find out in what ways each kind is useful to people.
3. Get some thin pieces of wood and make a small dog sled the way the Eskimos made theirs. Use twine to tie the strips of wood to the runners.
4. Carve objects of clay to make them look like the objects Attoka carved of ivory.



Eskimos spend much of their time carving things out of the ivory tusks of walruses. They make salt shakers, ash trays, and other articles which they sell to visitors. These Eskimos belong to a group that have taken on many of the ways of white men.

W. L. Highton

THE SEAL HUNT

For some weeks now, the Eskimos at Stevens Point had been hunting *hair seals*. These are not the *fur seals* from which sealskin coats are made. To the Eskimos hair seals are as valuable as the fur seal. They use the skins for clothing, boats, and a hundred other purposes. The flesh is eaten raw or dried. The *sinews* are used for thread.

When the surface of the ice seems frozen solid, the seals find small openings in the ice through which they poke their heads and breathe. These openings are called *blowholes* and are carefully watched by the hunters.

One day early in December Nancy heard Attoka tell Mr. Drury he was going *sealing*. He wanted *Minik*, his fifteen-year-old son, to go with him. The boy had discovered a blowhole a few miles up the coast. Nancy asked the hunter to take her along.

"You talk, make noise, then seal no come," said Attoka, grinning. Nancy promised to keep perfectly still and follow all instructions. Like all Eskimos, Attoka loved children. He had grown fond of the friendly little white girl, and finally agreed to take her along if her parents were willing. They said she might go, and so the trip was quickly planned. Attoka and Minik pulled the sled. Dogs were not used on these trips, as their barking would frighten the seals.

Mrs. Monroe packed a good lunch for Nancy and saw that she was snugly

dressed in her fur clothing. As soon as she was ready, they set out. Nancy rode in Attoka's boat on a sled. This boat was made of skins and was completely covered except for an opening just large enough for one person. This kind of Eskimo boat is called a *kayak*.

Darkness and Daylight in Alaska

They began the trip about the middle of the forenoon, but it was still dark as night. At first, Nancy had been very much surprised to find the days so short, but her father had explained it to her.

"Even at home, you know, the days always grow shorter at this time of year. They keep on getting shorter and shorter until a few days before Christmas. Then comes the shortest day of the year. After that the days grow longer and longer for six months. Then they begin getting shorter again.

"Now here in Alaska the days are much shorter at this time of year than they ever are back home. The shortest day here has less than an hour of sunlight. Farther north it has no sunlight at all. And at the North Pole the sun cannot be seen for six months at a time.

"In a few weeks our days will stop growing shorter and will begin growing longer. For six months they will grow steadily longer. Finally the time will

Kayaks have flaps which can be laced tightly around the person in the boat. Then the boats can tip over without letting water in, and they will not sink. These men are not laced into their kayaks.

Courtesy U.S. Indian Service



come, late in June, when there is less than one hour of night out of every twenty-four. At that time will come the longest day of the year. At the North Pole the sun will be seen twenty-four hours a day for six months straight."

Minik Gets a Seal

When they reached the blowhole, they built a low wall of ice and hard snow to protect them from the winds while they waited for the seals to appear. Attoka gave Minik a *harpoon* and told him once more how to use it. Then he pushed his kayak over the edge of the ice into the water and paddled away. He was going to look for seals on the ice farther out from the shore.

For a long time the children sat motionless. Minik kept his harpoon raised and ready to strike, as his father had told him to do.

The long watch was ended suddenly when Minik made a warning signal with his free hand. Nancy held her breath to keep from making any noise. At last the sleek, round head of a seal broke through the water. In an instant Minik hurled his harpoon, and the head of the harpoon sank deep into the creature's neck. Down went the seal into the icy water. But the animal could not get away, for the harpoon was attached to a strong line and Minik and Nancy held on to this line for dear life.

"Seal come up for air soon," Minik shouted. Nancy shouted back; there was no need for silence now.

Up came the seal for air, and down he went again. This happened several times while Nancy held on with both hands, helping Minik and wondering if the seal would give up before they were worn out.

At last the time came when the seal came up to stay. "Pull!" grunted Minik, tugging on the line with all his might.

Nancy pulled hard, and finally the limp body of the seal was dragged clear of the water. There it lay on the ice, more dead than alive. Minik and Nancy sank back on their heels, tired but happy.

Escape from a Polar Bear

Suddenly Nancy heard a crunching sound behind them and turned to see what made it. Coming toward them, less than a hundred feet away, was a huge polar bear!

Nancy could not speak; she could only pull Minik by the sleeve of his parka. He, too, was startled and frightened. But he had heard the men tell about polar bears. He knew that they will not attack human beings unless they are very hungry.

"Come!" cried Minik. He grabbed Nancy and dragged her around to the other side of their ice wall. They did not dare to put their heads out to watch what the bear was doing. But they knew he was coming close, for they could hear his breathing. They hoped he would be satisfied with the seal.

Hunting is not just a sport among the Eskimos. It is their most important way of getting food and clothing. Seal meat provides food. The hides are used for clothes and for covering boats.

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Another animal the Eskimos hunt for food is the polar bear. This huge white beast has a thick fur hide which makes a warm blanket as well as a comfortable bed to sleep on.

Ewing Galloway

Nancy's heart was thumping so hard she thought she could hear it. At last Minik peeked over the top of the ice wall; then he motioned to Nancy to look. The bear was dragging the seal away with him.

Coming across the water Nancy and Minik saw Attoka, paddling swiftly to their rescue. But the bear was too busy with the seal to see his danger. Upon reaching the icy shore, Attoka motioned to Minik to put Nancy in the boat and take her out of danger. Minik did so quickly; he knew his father wanted them to get away before he attacked the bear.

Attoka had a dangerous task ahead of him. He had no rifle, and his only chance of killing the bear was to throw his hatchet at its head and kill it outright. If he missed or only wounded the beast, it would surely turn and kill him. But Attoka was ready to take the chance, he was used to taking risks. An Eskimo's whole life is filled with danger.

Attoka crept forward. Still the bear did not see him. The hatchet flashed through the air and sank deep in the bear's brain. The huge creature reared up on its hind legs and fell over dead. Nancy took a deep breath of relief.

At their return home they received a great welcome. This was the first polar bear anyone from the village had caught since last winter. Everyone crowded about for a share of the polar bear and the seal. The Eskimos always share their catch with one another.



Soon the huge bear was skinned and divided up fairly. Attoka was given the heart because of his bravery and he had plenty of other meat as well. The skin was his, too. With a broad smile he handed it to Nancy. "Good girl," he said. "No make noise."

"Isn't it wonderful, Mother?" Nancy said, happily. "We'll put it in front of the fireplace at home."

"Yes, indeed it is wonderful, dear," said Mrs. Monroe. "And now, I must tuck you in bed. I'm sure you're all worn out."

"Yes, I am," murmured Nancy, snuggling down into her bed. "But we had so much fun!"

"What's this?" asked Mrs. Monroe, taking a package out of the deep pocket of Nancy's parka. "Why, Nancy!"

"Oh, dear," said Nancy, "I was so excited I forgot to eat my lunch!"

Things to Talk About

1. Tell how the Eskimos use seals. If you have seen a seal, tell about it.
2. How is a kayak different from a dory?
3. How long is the longest day of the year at the North Pole? In Alaska where Nancy was? How long is the longest night at the North Pole?

4. Tell what you think was the most interesting part of the story of the seal hunt.
 5. How is a harpoon different from a knife?
 6. How do you know that Attoka was a brave man?
 7. Tell what you think of Attoka for dividing his catch with the other Eskimos.
2. Choose a group to make a play of this part of the story and give it for the others.
 3. Use some sticks and cloth and make a little kayak.
 4. Find a word that means
 - a) Hunting for seals.
 - b) Hole in ice through which seals breathe.
 - c) A boat made of skins.
 - d) A long, loose coat.
 - e) A barbed spear.
 - f) Animals killed on one hunting trip.

Things to Do

1. Seals can be taught to do many tricks. Make pictures of a trained seal doing some tricks.

CHRISTMAS AND THE NEW YEAR

Everyone in the village was now busy getting ready for Christmas. The grown-ups seemed as excited about it as the children. Everyone was making gifts to give at the Christmas party.

Nancy visited the school and helped make bright red-and-green decorations to hang on the walls. Mrs. Drury taught the children to sing simple Christmas songs, and Nancy was delighted to join in singing:

"Jingle bells, jingle bells,
Jingle all the way."

They also sang "Silent Night," and Mrs. Drury told them Christmas stories.

Of course, real Christmas trees could not be had in this treeless land, but Mrs. Monroe cut out a big paper tree and tacked it on the wall. The children pasted ornaments on it and drew candles; then they stood back and looked at their work.

"My!" said Nancy. "Doesn't it look real?"

Gifts and Games

Nancy herself had been very busy making little Christmas gifts for her Eskimo friends. She did not have much to work with, but she pasted animal pictures on pretty colored paper. The Eskimos were

sure to be pleased; they all liked bright things.

Everyone in the village came to the party. Even the herders left their reindeer and came to Stevens Point to share in the fun.

Mr. Drury held Christmas church services. After that the Eskimos had their Christmas feast in the schoolroom. Each family brought its own food. There were piles of frozen reindeer meat and plenty of seal oil to eat with it. The white women added doughnuts and big pots of coffee to the Eskimos' feast.

The Monroes and the Drurys ate their Christmas dinner together. They had canned chicken, peas, and sweet potatoes, and a real old-fashioned English plum pudding.

Nancy was greatly interested in watching the Eskimos. She had seen them eat before, but was always surprised to see how much they could get in their mouths at one time. Each would cram as much meat into his mouth as he could and then slice off the rest with a single stroke of his knife.

After each mouthful of meat, the Eskimos dipped their fingers into a pot of seal oil and licked them with pleasure.

Everyone dipped from the same oil pot.

At the end of the meal the Drurys passed around bowls of popcorn, hard candy, and nuts. Then came time for exchanging gifts.

Nancy was surprised to find that every child had a present for her. The gifts were small, but Nancy liked them all—bits of carved ivory, tiny Eskimo dolls, small mukluks, buttons cut from reindeer horns, and even small squares of blubber! The Eskimos love to eat blubber, so Nancy thought she would save the little squares of fat to give to her Eskimo friends as a treat later on.

After all the gifts had been exchanged, young people and old took part in games and sports. Indoors, the men had a contest to see who could split a narrow strip of walrus hide into the two most nearly even pieces with one stroke of his knife. All the Eskimos were good at this game. Outside, there were contests of many kinds. One was a harpoon-throwing contest. There were several kinds of races—foot races, ski races, and dogsled races. Everyone was noisy; even the dogs howled with excitement.

One game everyone enjoyed was called *Nelakatuk*. Holes were cut all round the edges of a walrus hide. A crowd of men and women put their hands in these holes and pulled the hide tight. Then someone would climb in the center and be tossed up into the air, higher and higher each time. Sometimes he would be thrown more than twenty feet into the air. But he always had to land on his feet. If he fell, someone else took his place.

Some of the Eskimos could even perform stunts while they were in the air.

The cheers of the crowd would lead a daring Eskimo to still higher jumps and more difficult stunts.

Even Nancy tried the game, but landed on her feet only a few times before she fell.

At last, everyone was tired out, and Mr. Drury said the day's sports were over. Everyone went to his own igloo.

The Monroes went home and listened to the familiar Christmas carols coming over the radio from different cities in the United States and Canada. As Nancy lay on her bunk listening, she sighed with contentment.

"Hasn't it been the most wonderful Christmas?" she asked. "No wonder Santa Claus makes his home here in the North!"

Work in the Winter

Soon after the start of the New Year, the very cold winter weather set in. The wind blew and howled night and day. This was a very bad time of the year for the Eskimos. They could not hunt seals on the ice in such weather.

These Eskimos are playing Nelakatuk. The best players are those who can light on their feet every time they are tossed into the air. Do you think this would be an easy game to play?

Paul's Photos



The men set traps for small animals, like the fox and *lynx*. The women and boys tried to catch small fish through holes cut in the ice. The fish froze stiff as fast as they were taken out of the water. The Eskimos ate them just as they were, raw and frozen.

Then a big blizzard came tearing down from the northeast. Great clouds of fine, dry snow like tiny needles of ice swirled around and settled in deep drifts.

No one could go far from the village. The dogs tried to hide under the driftwood platforms. Some of the Eskimos brought their dogs into the entrance of their igloos for shelter from the cruel wind. The outsides of the igloos were banked with snow, and narrow passages of snow blocks had been built in front of each entrance.

The igloos were warm and comfortable inside. Small stoves were kept burning and oil lamps gave enough light for the people to see their work. They had caught many seals, so there was enough food on hand.

There was plenty of work for everyone to do. The men prepared their harpoons for the coming spring when they

would hunt whale and walrus. They needed many narrow strips of rawhide for lines. To make them, a man would cut round and round the outside of a large walrus hide until he had a long strip one fourth of an inch wide and about 600 feet long!

The men also busied themselves with ivory carving. They carved the ivory tusks from walruses they had killed. They also had some old ivory from animals of long ago whose bones are still found on the shores of Bering Sea. Traders like this rich, dark brown ivory, but it is harder to carve. The Eskimo men carved dolls and little animals, beads, and all sorts of articles which visitors to the northland like to buy.

The women also kept busy. One day Nancy watched an old woman split a walrus hide into two layers. The hide was about three quarters of an inch thick. The woman placed a curved board on her lap and put the skin over it. Then with her knife, she started to split the hide into two layers.

The two pieces of hide had to be the same thickness all over because they were to be used to cover an umiak. It might cost many lives if a weak place in the hide gave way. Mr. Drury said it took years for a woman to learn to split a hide as skillfully as this old woman.

Other women worked on seal and reindeer skins. They scraped, rubbed, and chewed on the skins until they were smooth and soft. Then they made them



Herds of walrus are very much at home on huge masses of floating ice. Here the hunters find and kill them for food and for their hides. Eskimos carve walrus tusks into ash trays and other things.

Lomen Bros.

up into clothes and shoes for the men to wear when hunting.

But life was not all work, even through these dark days. Some of the old men made their way to the schoolhouse even during the blizzard. It was warm in there, and the teacher gave them many cups of tea and coffee. Sometimes they would tell great tales of their early hunting days, before the Eskimos had taken on the white man's ways.

Visit of the Giant Bird

At length the blizzard blew itself out and several weeks of fine weather followed. Then one day a giant bird flew out of the south, a bird with widespread wings and a motor that first hummed and then roared as it passed overhead.

"An airplane! Look, it's circling. It's going to land!"

"He'll never make it on the ice. He'd better try the snow!"

Everyone talked at once and rushed around, excited and happy, but a little anxious. The plane finally made a safe landing on skis over a mile from the village. The pilot did not even get out of the plane. He had to go a hundred miles farther north and did not dare stop his motor. He dropped a bag of mail,

waved good-by, and flew off northward.

The Drurys and Monroes were disappointed that the pilot could not stay and visit with them. But they were all pleased to get their mail. It was the first they had received since the start of winter.

Things to Talk About

1. Tell about Christmas gifts that you have made. Do you think Nancy and the Eskimo children made good use of the things they had to work with? Do you know the Christmas songs they sang?
2. Why was the Eskimos' dinner so different from Nancy's? Do you think they would have liked hers as well as their own?
3. Tell how the games played at the Christmas party would help to make the Eskimos quick and sure-footed.
4. Why is winter a bad time of the year for the Eskimos? Do you think they made the best use of their time during the long, cold days? Why?

Things to Do

1. Make a list of the things you have in your home that would surprise the Eskimos very much. Which of them do you think the Eskimos will have some day? Why do you think so?
2. Draw a picture of the giant bird that flew to Stevens Point.

THE WHALING SEASON

Near the Arctic, there is no real spring or fall. Almost overnight, the season jumps from winter to summer and from summer back to winter again. By April, the people of Stevens Point saw signs that the long winter was nearly over. The sun shone for many hours a day. The glare on the snow and ice was so bright that everyone wore dark glasses to prevent snow blindness.

Everything was ready for the whaling season—boats, harpoons, guns, ammunition, clothing, and other supplies. Some of the umiaks had been repaired. A new umiak had been made.

Making an Umiak

Nancy had watched the boatmaking with great interest. First the men made a 35-foot frame. The ends of the boat were carved from driftwood stumps.

The women made the cover for the umiak. They used three or four walrus hides, sewed together very closely so they would be watertight. Sometimes six or eight sealskins were used instead of walrus hides. The skins were fitted over the frame and drawn until the covering was very tight and strong.

Several of the Eskimos had outboard motors to run their umiaks, but they also took along oars, paddles, and a small sail. When a whale is sighted the Eskimos put up the sail to draw the boat in noiselessly so that the whale will not be alarmed before it can be harpooned.

The sleds, too, were made ready. They were fitted with ivory runners for use on the rough ice. The men packed the sleds high with harpoons and hundreds of feet of strong walrus-hide lines. There were also floats made from whole sealskins, turned inside out and blown up like balloons. They took along guns, ammunition, and cutting knives with long handles.

Every year, about this time, the ice broke far out at sea. This made a channel of open water, through which the whales made their way from the distant waters where they had spent the winter. They traveled up through Bering Strait and far into the north. During the weeks that the whales were making this journey through the icy sea, the Eskimos hunted them.

At last word came that the ice had broken, and the hunters set out across it, going as close as they could to the channel of open water.

The Story of Whaling

Professor Monroe did not think it wise for his family to try to go all the way out to the open channel. They went part

way, and then returned to the village.

Her father promised Nancy she could go back as soon as word came that a whale had been caught. It sometimes took several hours to land a whale after it had been harpooned. On the way home, he told Nancy about the Eskimo's whaling.

"They used to have strict rules about whaling," he began. "No women were allowed to go along. A raven's head had to be worn on the back of the man who steered the boat. No one was allowed to speak the name of the animal being hunted. Just as soon as a whale was caught, fresh water was poured over the front of the boat. I have heard this was to keep the spirit of the animal from being thirsty. They took all these rules very seriously."

"Do any of the Eskimos believe those things now?" asked Mrs. Monroe.

"I don't believe so. The Eskimos have taken over many of our ways. It is good to see them use outboard motors to save time, and guns and ammunition, instead of just harpoons and knives. On the other hand, it is too bad to see them want to give up their own clothing and food, which are good for them, and take on the white man's.

"Do you know what education means?" the professor asked Nancy.

"Why—being able to read and write, and knowing history and arithmetic—and things," said Nancy.

Her father smiled and shook his head. "Yes, but not only that. Being educated also means having the knowledge one needs to live in his own country and climate. In that sense the Eskimo of long ago was very well educated."

The United States bought Alaska from Russia many years ago. The peninsula lying across Bering Strait from Alaska is still part of Russia. What bodies of water lie near Alaska? Trace the route over which Nancy traveled from Seattle to Stevens Point. Which part of Alaska has the coldest winters? Which part has the longest winter nights?

Hunting Eider Ducks

Many days passed without any word coming back from the whaling crew. But those who were left behind in Stevens Point were almost too busy to notice. The Eskimos were now spending much of their time hunting *eider ducks*.

Every summer the eider ducks fly north at just about the same time. This is called a *migration*. Soon after arriving these ducks lay their eggs on the tundra. They pluck the soft down, or covering, from their breasts to make their nests. This down helps keep the eggs warm until they are hatched.

The Eskimo boys searched for the eggs, which were good to eat, and killed many of the eider ducks. Some used shotguns; others hunted in the old Eskimo way with a bird *bola*. This weapon was made by tying together at one end five lengths of walrus-hide cord, with a stone at the end of each cord. The boy swung the bola several times above his head, and then threw it as hard as he could into a flock of low-flying birds. The cords spread out in all directions and usually at least one bird was struck down by a stone.

When the whale hunters had been gone about ten days, two boys returned to the village with the good news that a whale had been caught. Everyone dropped what he was doing. The dogs were harnessed to the sleds, and the long trip across the ice began.



A Whale Is Caught

Mrs. Monroe remained behind with Mrs. Drury. Professor Monroe and Nancy hurried off with the Eskimos. When they reached the channel a few hours later, they were just in time to watch the men making a huge whale fast to the edge of the ice. Professor Monroe said the creature was fully 50 feet long and weighed about forty tons. Nancy had never seen such a huge animal.

Minik told Nancy a little of what had happened. For ten days the men had been taking turns watching. As soon as they spotted the whale, they pushed the umiak in the water. Everyone took his position in the boat. One of the men carried a gun loaded with a small bomb full of gunpowder. Others had harpoons poised ready to throw.

Suddenly the whale dived under the water and a few minutes later came up again, heading directly toward them. The gun went off, and the harpoons were thrown at the same time. A huge spurt of blood went up as the bomb hit the

giant of the sea and exploded inside it. But even then the whale was far from dead! It dived straight for the bottom of the sea.

Floats of blown-up sealskins had been attached to the harpoons with long lines. These showed the men where the whale was. In this way they could tell where it was likely to come up.

When the whale came up the second time, one of the men was able to shoot it again. This time he hit a vital spot. The whale rolled over dead. At once many harpoons with floats were thrown to keep the whale from sinking. The Eskimos in their boats towed the whale toward the channel. At last it rested at the edge of the ice, held fast with a great many lines!

There was no way of dragging the heavy animal up on the ice. So the men at once got saws and knives and began chopping it up as it lay in the water.

Huge slabs of black skin, together with thick layers of pink fat, or blubber, were chopped away and carted off on sleds. After the blubber, came the meat, tons and tons of it. What a feast they would have! There would be plenty of food for months to come.

Nancy had enjoyed seeing the whale when it was whole, and watching the men tie it fast to the ice, but a little of the cutting was enough for her! She was glad to go back with the first sled party to the village.

The Feast of the Whale

Soon after the men came back, the great event of the year took place. This was the Feast of the Whale, a big party given by the men who had killed the first whale. The feast was held outdoors. The

umiaks were placed in a circle and turned on their sides to make a shelter against the wind. The people sat under them on skins.

Three great events made up the festival. First, there was plenty of the Eskimo's favorite game of toss-the-blanket, or Nelakatuk. Then the Eskimos feasted on bear, eider duck, and of course loads and loads of *muktuk*, the outside skin of the whale, and whale blubber. Everyone was happy and everyone ate as much as he could.

Then there was dancing. Drums made of hoops with walrus bladders stretched tight over them were brought out. They were beaten with heavy, even strokes. The dancers wore queer masks on their heads. They began a series of slow movements that was part dancing and part acting.

"They are acting out the story of the whale hunt by dancing," Nancy's father whispered to her. The drums beat faster and faster. The men danced faster and grew more and more excited. Nancy thought they would never stop. It ended with both drummers and dancers falling over almost in a faint.

Things to Talk About

1. How is an umiak different from a kayak? Describe the making of an umiak.
2. Why can the Eskimos catch whales at the end of winter instead of at any time of the year?
3. What were some of the rules about whaling? Do you think they had anything to do with catching whales?
4. What did Nancy think an education means? What did Professor Monroe tell her it means?
5. What is meant by the *migration* of eider ducks? Do any other birds migrate?

6. Tell the story of the catching of the whale. How were the different parts of the whale used?

Things to Do

1. Look for the word *hunting* in the index and read again about the ways of hunting in different regions. Make a list of the different ways of hunting told about in the book.
2. Make a list of things we do that the Eski-

mos might think just as queer as we think their rules for whaling are.

3. Measure your schoolroom to learn if it is as long as the whale the men caught. Can you find out how many pounds it weighed?
4. Get ready to tell how the Feast of the Whale was like the Navaho's thanksgiving and how it was like the fiesta of the harvest of José's people. Read these stories again. You can find them quickly by looking in the index.

NANCY'S VISIT DRAWS TO AN END

Nancy woke one June morning to hear the patter of rain on the roof. It was the first rain that had fallen in nine months. For three days and nights it rained steadily. Nancy grew very tired of having to stay in the house.

"Just be patient a little while longer," her father said, "and I think you'll agree that this rain is worth while."

New Life on the Tundra

In a few days Nancy knew what her father meant. Almost overnight the snow melted from the tundra. Only small patches of snow and ice remained here and there. The rain stopped, and the sun was slowly rising higher and higher in

the sky and shining almost all day long.

As the snow melted and the sun shone, many brightly colored flowers appeared on the tundra. When Nancy saw the flowers blooming, she rushed outdoors without her parka. But a blast of cold air sent her hurrying back for her Eskimo clothing.

When she came out again she met a couple of her Eskimo friends. "Hello!" said Nancy. "Isn't this fine? My, but it will be nice to walk on dry land again, after all the snow."

The Eskimo children were very polite, as are most Eskimos. They did not like to disagree with her. But they pointed

This bird, the ptarmigan, is much sought after for food. But nature helps the ptarmigan to escape the men and animals that hunt it by giving it white feathers in winter. Then it can hardly be seen against the snow. In the picture on the right, the bird is changing from summer to winter coloring. In summer all the bird's feathers are like the dark ones. Nature also protects some other animals, like the deer and rabbit, by giving them a change of coloring to suit the season.

Courtesy Fish and Wildlife Service



shyly to her feet, and shook their heads.

"Tundra not dry," one of them said. "No waterproof boots. You get feet wet."

"Oh, dear!" Nancy said, disappointed. She had thought she could surely get along without her boots, now that the snow was gone. "Oh, well, I'll get them. It will take me only a minute."

When they got out on the tundra, Nancy was very glad the children had warned her to wear her boots. Instead of firm, dry ground, the land was like a big marsh, or bog. The earth had thawed out only to a depth of about six inches below the surface. Beneath that, it was still frozen solid. The melted snow could not soak down into the ground. Instead, it remained on top of the tundra. Only small mounds, or *hummocks*, of earth appeared above the water. Nancy's father told her the ground underneath remained frozen the whole year round.

Many little shrubs had great numbers of tiny, green berries on them. Nancy learned that in August they would be ripe. The women would pick the berries and put them in seal oil. This would keep them until the following winter.

The Eskimos also searched for eggs on the tundra. Many kinds of geese and ducks made their nests in the moss and stubble grass, or among the willow sprouts. Other birds nested there, too, including many singing birds—robins, thrushes, and warblers.

While all this life and beauty covered the tundra, the sea still made Nancy think of winter. Huge masses of floating ice drifted among the waters, making it no longer safe to venture out to sea. A boat could be crushed between two great

chunks of moving ice. Some of the men went out to hunt walrus, but even the Eskimos thought this work was dangerous.

Nancy enjoyed everything about her visit among the Eskimos, but she was beginning to be lonesome for her own home. Both she and her mother were glad when Professor Monroe told them it would soon be time for them to leave.

"The United States coast guard cutter 'Northland' will be coming up as soon as the ice is clear," Nancy's father said. "We will go back with her on the return trip to Nome. There we can take the steamer from Nome to Seattle."

In the Arctic region, almost all plans depend upon the weather. There was no telling when the "Northland" would arrive. It was July before it came. The coast guard cutter brought a government doctor and dentist to the village. They came to take care of the people who were ill or needed a dentist. The captain said they would be back in less than a month, and the "Northland" sailed on up the coast to stop at other villages.

Good-by to Alaska

When the boat returned, the Monroes were all packed and ready to go. The Eskimos helped them carry their bags and the boxes containing Professor Monroe's Eskimo collection to the umiak. It was not the Eskimo's custom to say "good-by" or "hello," but the Monroes knew that these friends of theirs were sorry to see them go, just as they themselves were sad at leaving.

The Drurys said farewell, and Mrs. Drury gave Nancy a last hug. Just then Minik came forward, grinning as usual. He thrust something into Nancy's arms, something soft and brown and friendly.

"Oh!" cried Nancy, surprised and delighted. "A Malemute puppy! Oh, thank you, Minik. Nothing could make me happier!"

She climbed into the umiak that was to take them to the cutter, holding the puppy carefully in her arms. The boat moved away from the shore, and Nancy and her mother and father waved a last good-by.

A little while later they stood on the deck of the "Northland," watching the figures on the shore growing smaller and smaller. They all felt somewhat sad about leaving this land, even though they were going home.

"You know," Professor Monroe said thoughtfully, "this is a wonderful country. There is great wealth here that has barely been touched. Some day I think a great many people will live in some parts of this land. I think the Eskimos were right when they called this country 'Alaska.'"

"What does it mean, Daddy?" asked Nancy.

Her father looked again at the tundra, stretching inland as far as he could see. "Alaska," he said, "means 'the great land.'"

OTHER COLD NORTH LANDS

The other cold lands in the far North look much like the part of Alaska that Nancy visited. If she could go to any of these other countries, she would soon feel right at home. She would find the people much like her Eskimo friends, and she would find them doing many of the same things.

All these regions have long, cold winters with many hours of darkness. They

Things to Talk About

1. How was the tundra changed after the rain? What changes could Nancy notice each day?
2. Tell about the foods the Eskimo women gathered from the tundra.
3. Can you think of any reason why the ground stays frozen below the surface the year round?
4. Do you think Mr. Monroe was right when he called Alaska a wonderful country? Tell all the reasons you know for calling it a great land.
5. What do you think Nancy will miss the most when she reaches home?

Things to Do

1. Find paragraphs in this story to prove that the Eskimos were polite. Take turns reading paragraphs to the others.
2. Copy this table and write the names of plants and birds that are told about in the story under each heading.

LIFE ON THE TUNDRA

FLOWERS	OTHER PLANTS	BIRDS
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3. Write a story about the most interesting thing you learned about Alaska.
4. Write riddles about the people and things you have read about in this story and read them to the others.

have short summers, during which the sun shines long hours every day.

In each of these regions there are great stretches of tundra, where the winters are so cold that trees do not grow. But many small plants grow up quickly during the long sunny days of summer.

These cold barren lands are all far north of the equator. They are the lands that are nearest the North Pole. There



This map is different from any you have seen in this book. The North Pole appears in the middle. If you start at the pole and move your finger toward any side of the map, you will move it toward the south. What continents and countries lie nearest the North Pole?

are no regions in Antarctica like the land of the Eskimos about which we have read.

Cold Lands of Canada

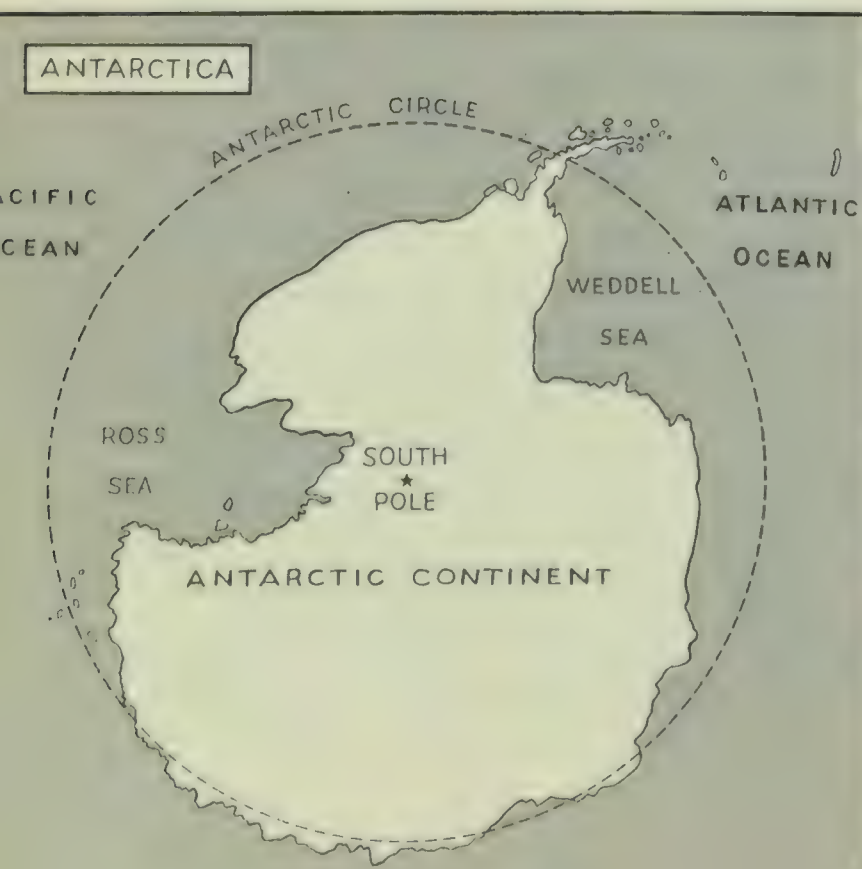
The northern part of Canada is much like Alaska. Only a few people live in that region. Many of these people are Eskimos.

White traders and missionaries have taught the Eskimos many things. Some of them have learned to raise vegetables, fruits, and certain kinds of grain during their short summers. Many have learned to read and write their own language and to speak English.

Most of the Eskimos of Canada live near the seacoast. Like Nancy's friends in Alaska, they get part of their living from the sea.

The reindeer is important to the people of Canada, just as it is to the people of Alaska. The government of Canada bought reindeer in Alaska for the Eskimos in their country, just as our government bought reindeer in Siberia for the Eskimos of Alaska.

The Eskimos of Canada move often to find food for themselves and pasture for their reindeer. In the summertime they live in tents made of reindeerskins. In winter they live in igloos which they build of ice and snow.



How is this map of Antarctica different from the one above of the Arctic regions? If you start at the South Pole and move your finger toward any side of the map, in which direction is it moving? Which direction is Antarctica from your home? What bodies of water are shown on this map?

Islands in the Cold North

Notice the many islands north of Canada on the map on page 241. The long narrow one just north of *Hudson Bay* is called *Baffin Island*.

Eskimos live on Baffin Island. The only white people they ever see are the traders that visit them from time to time. The traders sell them knives, cloth, and other things in exchange for furs.

These Eskimos do not farm. They get most of their food from the seals, walrus, reindeer, and other animals. In summer they gather a few wild berries and birds' eggs.

The Eskimos of Baffin Island enjoy games and contests the same as the Eskimos of Alaska. Every year before they start out to hunt the wild reindeer, the different tribes of Eskimos come together to play and visit for a number of days.

Not far from Baffin Island is a very large island called Greenland. Greenland is not a good name for this land, because it is never green except in summer along the shores. The center of the island is covered by a very thick layer of ice. Parts of this great ice sheet are more than one third of a mile thick.

Nearly all the people of Greenland are Eskimos. They get most of their living by hunting and fishing. They trade furs, whale oil, and other products for the things they need.

The Lapps

People called *Lapps* live in the cold lands of northern Europe. Some of them live in Norway and other near-by countries. Farther east in Siberia in Asia are tribes of people whose ways of living are much like those of the Lapps.

The Lapps look much like the Eskimos. Their skins are yellow, and their hair is dark and straight. The Lapps are very small. Even the grown-up men and women are no taller than some of your classmates.

The lands of the Lapps are much like the lands of the Eskimos. There are miles and miles of tundra in these countries, just as there are in the lands where the Eskimos live.

The reindeer is the most important animal to the Lapps. It gives them meat and milk and clothes as well as covers for their beds and skins for their tents.

Reindeer pull the sleds in which the Lapps ride over the snow, too. Their

Some of the Lapps are nomads who wander about with their reindeer herds in search of new pastures. Can you tell of any other peoples who follow their herds? In what way does the home of these Lapps look like the summer home of the Navahos?

De Cou—Ewing Galloway



sleds look like a canoe that has been cut in half across its middle. The wide part is at the back, the pointed part in front.

Like the Navahos, the Lapps have a summer home and a winter home. They must move to find pastures for their reindeer. The reindeer can smell the moss that they like to eat, even when it is covered with snow. The Lapps follow the reindeer to their pastures.

Some of the Lapp homes are made of logs and sod, but most of them are tents made of poles and reindeerskins. The people and their dogs live together in these homes.

A pot of reindeer meat is kept cooking most of the time. The family does not always eat together. When anyone gets hungry, he helps himself from the pot.

Lapp children go to school in the summertime, for there are many weeks in the winter when the sun does not shine. The teacher's home is the schoolhouse. Sometimes the children sit on the floor in the schoolhouse to study their lessons, but sometimes they sit on the ground outside.

Besides learning to read, write, and do arithmetic in school, Lapp children learn

about the best ways of taking care of their reindeer. They also learn how to keep clean. And they are taught carving and other ways of making things.

The children help their fathers and mothers with their work. The girls learn to make baskets, and they learn to weave and sew. The boys help their fathers with their reindeer. They help to gather wood and to train young reindeer to pull their sleds.

Besides the Lapps that get their living from the reindeer, there are others that spend most of their time fishing. Some of them build their homes near the sea and so are known as the "Sea Lapps." Others build their villages near rivers, and are known as "River Lapps."

The Cold North

You have learned that the cold lands of the North are alike in many ways. In the lands that are farthest north only small plants grow. There the people get their living from the animals and fish that live in the ocean or the animals that they hunt on land.

The winters are long and the summers are short in all parts of the far North.



Some of the Lapp children go to schools like these. They learn about the same things the Eskimo children learn—how to read and write and do arithmetic, and the best ways of caring for reindeer.

Paul's Photos



The cold northern lands of the world are shown in black on this map. Do many people live in these regions? Are there some cold northern lands where no people live? Where are some of these lands? Can you find the cold northern land of the Eskimos whom Nancy visited? Where are the cold lands where other Eskimos live? In which of these lands do the Lapps live?

The winter days are short and very, very cold. In some places the sun does not shine for as much as two months in the winter. The summer days are long, and in some lands the sun may be seen at midnight during part of the summer.

The reindeer is important to the people in all of these lands. It gives them food and clothing and many other things.

The Eskimos and the Lapps make good use of the things that they have in their lands, and they are learning many things from other people. There is much that they can teach other people, too, about the best ways to live in their cold arctic region, and the value of being generous and helpful to one's neighbors.

Things to Talk About

1. Tell what you would see if you could fly over the North Pole. Over the South Pole.

In what ways are these parts of the earth alike? In what ways are they different?

2. Why may we call some of the Eskimos and Lapps nomads? What other people have you read about that are nomads?
3. In what ways is a Lapp school like an Eskimo school? In what ways are they different?
4. What is the most interesting thing that you read about the people of the cold North? What is the most interesting thing that you read in this book?

Things to Do

1. On a globe or map point out all the lands where Eskimos live. Find the lands where the Lapps live. Put your finger on the place where the North Pole is on your globe. Move your finger toward the south. Put your finger on the place where the South Pole is. Move your finger toward the north.
2. Make a picture story about the people in one of the cold lands of the North.

3. Write questions about things in this unit that you wish to know more about. Perhaps your questions can be written on the black-board and you can help each other with them.
4. Play a guessing game called, *I have been traveling*. Pretend that you visited one of the cold lands. Tell interesting things about it and ask the others to guess where you went. You might say: "I visited a land of ice and snow. It is the coldest part of the earth. No one lives on the continent that I visited. Where have I been?"
5. Which of the books about cold lands did you like best? What were your favorite books about the other units?

BOOKS TO ENJOY

ATWOOD-THOMAS. *Visits in Other Lands*. Ginn & Co., Boston.

Netsook and Klaya in the Far North, Pp. 20-43.

CARPENTER. *Our Little Friends of Eskimo Land: Papik and Natsek*. American Book Co., New York.

This Eskimo boy and girl help hunt seals, birds, and reindeer; visit the trading post; go fishing; and work and sing with the others.

JAMES. *White Reindeer*. Chas. Scribner's Sons, New York.

If you are a good reader, you will like this story of the Lapps, written by a woman who lived with them for a year.

KANGUK. *Kanguk, A Boy of Bering Strait, as Told to William Albee*. Little, Brown & Co., Boston.

Kanguk, an old Eskimo man, drew pictures of his boyhood life and told stories about them. The pictures and stories are in this book.

LAMBERT. *The Story of Alaska*. Harper Bros., New York.

You will like these interesting stories and pictures about Alaska and its people.

MACHETANZ. *Panuck, Eskimo Sled Dog*. Chas. Scribner's Sons, New York.

Panuck was trained by Andy to be the leader of his dog team. Later Panuck saved Andy's life by guiding the team safely through a blizzard.

McCONNELL. *Living in Different Lands*. Rand McNally & Co., Chicago.

Cold Northern Lands: Norway, Lapland, and Baffin Island—Pp. 140-162.

McMURRAY. *All Aboard for Alaska*. D. C. Heath & Co., Boston.

A boy's own story of his vacation trip to Alaska.

MOLLOY. *Coast Guard to Greenland*. Houghton Mifflin & Co., Boston.

Greg went with his father, captain of a coast guard cutter, to Greenland, and had all kinds of exciting adventures.

O'BRIEN. *Sled Dogs in Snowland*. Follett Publishing Co., Chicago.

Many interesting stories are told of the puppies that were born in Little America and trained to be sled dogs.

SALWAY. *American Children on the Map*. Garden City Publishing Co., New York.

These stories and pictures of the countries of North and South America are very interesting.

SICKLES. *Eskimos, Hunters of the Arctic*. Garden City Publishing Co., New York.

This picture book tells about the summer and winter homes of the Eskimos and tells their story of the northern lights.

SMITH. *World Folks*. John C. Winston Co., Philadelphia.

The Far North and the Far South—Pp. 100-120.

SONDERGAARD. *My First Geography of the Americas*. Little, Brown & Co., Boston.

There are maps, pictures, flags, and stories about the countries of North and South America.

STULL and HATCH. *Journeys Through Many Lands*. Allyn and Bacon, Boston.

The Land of the Eskimo—Pp. 47-57.

SWENSON. *Kayoo, The Eskimo Boy*. Charles Scribner's Sons, New York.

This story was written by a teacher of Eskimo boys and girls who tells many things about them.

Glossary

This glossary contains the words in FRIENDS NEAR AND FAR which have meanings or pronunciations that may be new to you. These same words have been printed in *italics* in the book. You can use the glossary just as you would a dictionary. It gives only the meaning that a word has in this book. In your dictionary you may find other meanings for many of the words.

Each word is respelled to show you how to pronounce it. You can learn the sounds the marked letters stand for by seeing how they are used in the easy words below.

If you find *Sp.* after a word, it means that the word is Spanish or came from the Spanish language. *Ind.* after a word means it is an Indian word.

KEY TO PRONUNCIATION

ā pāil, tāle	ě yēs, hēlp	ōō lōōk, gōōd
ā alwāys, vācation	ē bakēr, watēr	ou house, south
â bâre, câre	ī bīte, life	oi oil, toil
ă bād, hād	ĩ bīt, sĭx	ū ūse, cūre
ä fār, mārch	ō gōld, ōver	û ūnite, mŭsician
â bâth, ânswer	ô ômit, ôbey	û hŭrt, hŭrry
â âlone, ideâ	ô stôrm, lông	ű ŭp, bŭt
ē bē, sēcret	ö crōp, hōp	ú circŭs, ribbon (bŭn)
ê bēlong, bēgin	ōō sōōn, glōōm	

adobe (ă·dō'bĭ) *Sp.* Sun-dried brick made of muddy clay.

Alaska (ă·lās'kā). The country in the northwestern part of North America.

Alvarado (ăl'vā-ră'thō) *Sp.* The Spanish conqueror of the Maya Indians.

Amazon (ăm'ă·zōn or ăm'ă·zŭn). A South American river—the largest river in the world.

ancestor (ăn'sēs-tēr). A person from whom one is descended, especially a person farther back than a grandparent.

anchor (ăng'kēr). A piece of iron fastened to a chain or rope, used to keep a ship from drifting.

Andoke (ăn·dō'kā) *Ind.* Name of a South American Indian tribe.

Antarctica (ănt-ărk'tĭ-kā). The continent that lies around the South Pole.

antler (ănt'lēr). Branched horn of a reindeer or other deer.

aquarium (ă·kwâr'ĭ-ŭm). A globe or tank for fish.

Arab (ăr'ŭb). A native of Arabia.

Arabia (ă·ră'bĭ-ă). A country in the southwestern part of Asia.

Arabian Desert (ă·ră'bĭ-ăn dēz'ĕrt). The large desert in Arabia.

Arctic (ărk'tĭk). Name of the ocean that lies around the North Pole.

Argentina (ăr'jŭn-tē'nă). A country in South America.

Argteek (ărg'tĕk). Name of an Eskimo woman.

Arizona (ăr'ŭ-zō'nă). A state in the southwestern part of the United States.

Atitlán, Lake. See **Lake Atitlán.**

Attoka (ăt-tō'kā). Name of an Eskimo man.

babasco (bă-băs'kō). Plants used by the Indians of South America in making fish poison.

Baffin Island (băf'ĭn ĭ'lŭnd). An island that is north of Hudson Bay in Canada.

bait (băt). Worms, small fish, or anything put on a hook for the purpose of catching fish.

bale (bāl). A large bundle of hay or straw. To bale hay is to make it into bales.

- balancing machine** (bāl'ing mǎ-shēn'). A machine that bales hay or straw.
- bamboo** (bām-bōō'). A woody grass with a long, hollow stem which is sometimes five or six inches thick.
- band shell** (bānd shēl). A building in which band concerts and other musical programs are given.
- bangboard** (bāng'bōrd'). A high board on the far side of a wagon to keep ears of corn thrown into it from going outside.
- bank** (bāngk). Shallow place in the ocean where fish feed.
- barker** (bār'kēr). One who stands in front of a show and advertises it.
- barnacle** (bār'nā-k'l). A small sea animal with a white shell.
- bay** (bā). Part of a sea or other body of water reaching into the land.
- Bedouin** (bēd'ōō-in or bēd'ōō-ēn). An Arab who is a nomad.
- bell buoy** (bēl bōō'ī). Buoy with a bell on it that is rung by the motion of waves.
- Bering Strait** (bēr'ing or bār'ing strāt). The narrow strip of water that separates Alaska from Asia.
- binder** (bīn'dēr). A machine that cuts stalks of grain and ties them into bundles.
- blowgun** (blō'gūn'). A tube from which an arrow is blown by the force of the breath.
- blowhole** (blō'hōl'). A hole in the ice through which seals get air.
- bola** (bō'lā). A weapon made of cords tied together at one end with a stone tied to the other end of each cord.
- Boro** (bō'rō) *Ind.* Name of the South American Indian tribe to which Pimwe belongs.
- bough** (bou). A limb or branch of a tree.
- breadfruit** (brēd'frōōt'). Large round fruit from the breadfruit tree.
- breechcloth** (brēch'klōth). A kind of clothing worn mostly by men and boys in hot climates.
- British Isles** (brī'tīsh ils). The group of large islands west of Europe.
- brooder house** (brōōd'ēr hous). A covered and warmed place for raising young chickens.
- Bua** (bōō'ā) *Ind.* An Indian name that means "Anacconda."
- burro** (būr'ō or bōōr'ō). A small donkey.
- cacao** (kā-kā'ō or kā-kā'ō). Seeds of the cacao tree used in making cocoa and chocolate.
- Canada** (kān'ā-dā). The country north of the United States.
- canning factory** (kān'ing fāc'tō-rī). A factory where fish or other food are canned.
- canyon** (kān'yūn). A deep, narrow valley with steep sides, usually with a stream at the bottom.
- Cape Horn** (kāp hōrn). The point of land at the southern end of South America.
- capital** (kāp'ū-tūl or kāp'ū-t'l). The city where the business of the government is carried on.
- caravan** (kā'rā-vān or kā'rā-vān'). A number of people traveling together through a desert or other dangerous country.
- cargo** (kār'gō). The goods carried on a ship.
- cargo boat** (kār'gō bōt). A boat that carries goods from one place to another.
- cassava** (kū-sā'vā). A plant, sometimes called *manioc*, that grows in hot lands. The roots are used in making tapioca and cassava bread.
- centavo** (sēn-tā'vō) *Sp.* A coin, worth less than our cent.
- ceremony** (sēr'ē-mō'nī). A special program of songs, dances, and other activities at planting time, harvest time, weddings, and other important times.
- chaff** (chāf). The husks taken from small grains by threshing.
- channel** (chān'ūl). A narrow body of water connecting two larger bodies of water; also the deeper part of a waterway.
- chantey** (shān'tī or chān'tī). A song sung by sailors at their work.
- character** (kār'ūk-tēr or kār'ik-tēr). Ways in which a person thinks, feels, or acts that make him different from other people.
- Chichicastenango** (chē'chē-kās'tā-nāng'gō) *Ind.* A city in the highlands of Guatemala.
- China** (chī'nā). A large country in the eastern part of Asia.
- chore** (chōr). A small task or piece of work.
- chowder** (chou'dēr). Food prepared from lobsters, clams, or fish cooked with pork, crackers, onions, or other vegetables.
- clearing** (klēr'ing). Land from which the trees and undergrowth have been removed.
- cliff** (klīf). A high, steep face of rock.
- climate** (klī'mīt). The kind of weather a place has.
- clipper ship** (klīp'ēr shīp). A kind of ship built for fast sailing.
- cloudburst** (kloud'būrst'). A very heavy rain.
- coast** (kōst). The shore of the ocean or sea.
- Coast Guard** (kōst gārd). A force of men who guard the coast and help people or ships in trouble.
- colter** (kōl'tēr). A blade or sharp wheel on a plow that cuts the soil ahead of the plowshare.
- combine** (kōm'bīn). A machine used for harvesting wheat, oats, and other small grains. It cuts and threshes the grain at the same time.
- Congo** (kōng'gō). A large river in central Africa.
- consolidated** (kūn-sōl'ū-dāt'ēd or kūn-sōl'ū-dāt'id). Joined together. Sometimes two or more country schools are closed and all the pupils go to one "consolidated school."
- continent** (kōn'tū-nūnt). A very large body of land. The continents are: North America, South America, Europe, Asia, Africa, Australia, and Antarctica. Australia is sometimes called an island or an island continent.
- corn belt** (kōrn bēlt). A large region of farm land where corn is the principal crop.
- corncrib** (kōrn'krīb'). A building for storing corn. There are open spaces between the slats of which the sides are made.
- corn-picking machine** (kōrn pīk'ing mǎ-shēn'). A machine that husks corn and loads it into a wagon.
- corn shock** (kōrn shōk). Small stack of cornstalks cut and set on end in the field.

corral (kû-rāl' or kô-rāl'). A pen or lot for animals.
coyote (kî'ôt or kî-ô'tê). A small wolf that lives on the western plains of North America.
crab (krăb). A shell-covered water animal with eight legs and two pincers. Some kinds of crabs are good to eat.

cradleboard (kră'd'l-bôrd). A board to which an Indian baby is strapped.

crater (kră'tēr). The center of a volcano, usually a funnel-shaped opening or pit.

crop (kröp). Grain, fruit, vegetables, or other produce grown and gathered for food and other uses.

cultivator (kûl'tû-vā'tēr). An implement that loosens the soil around growing crops and kills weeds.

current (kûr-ünt). The flow of a stream or river.

dairy product (dâr'î pröd'ûkt or pröd'ûkt). Product of a dairy farm, such as milk, butter, and cheese.

deep-sea fishing (dêp' sê' fîsh'îng). Fishing far out in the ocean.

deerskin (dêr'skîn). The skin or hide of a deer.

denim (dên'im). A coarse cotton cloth used in overalls.

desert (dêz'êrt). Any region that is too dry or too cold for many plants to grow.

Diesel engine (dê'zûl ên'jûn). A kind of engine that burns oil instead of gasoline.

digging stick (dîg'îng stîk). A stick used for digging or loosening the soil.

disk (dîsk). A harrow that cuts up the soil.

dory (dô'rî). A flat-bottomed rowboat much used by fishermen.

downstream (doun'strēm'). The direction toward which a stream flows.

driftwood (drift'wôôd'). Floating wood that is washed up on the shore.

East Indies (êst in'dîz). A group of islands between Asia and Australia.

ebb (êb). The flowing back of water away from the shore at low tide.

eider duck (î'dêr dŭk). A large duck that lives near the seas of the North.

elevator (êl'ê-vā'tēr). A platform, bucket, or anything else that lifts a load from one level to another.

equator (ê-kwā'tēr). An imaginary line around the earth that is the same distance from the North Pole that it is from the South Pole.

Eskimo (ês'kî-mô). Name of the people of the cold north lands of North America and the near-by islands.

ewe (û). A female sheep.

exported (êks-pôrt'êd or êks-pôrt'id). Sent out of a country. An export is a product sent out of a country.

eye (î). The spot on a potato from which a new plant grows.

farm implement (fârm î'm'plê-münt). A piece of machinery or a tool used on a farm.

feed lot (fêd lô't). A lot where livestock are fed.

fertilize (fûr'tû-lîz). To put plant food into the soil.

fiesta (fî-ês'tä) *Sp.* A religious holiday or celebration.

finca (fêng'kă) *Sp.* A coffee or fruit plantation.

fiord (fyôrd). A narrow inlet or bay between high banks or cliffs.

fishing ground (fîsh'îng ground). Place in the ocean where the fishing is good.

fishing line (fîsh'îng lîn). Line with hooks attached for catching fish.

fishing schooner (fîsh'îng skōōn'ēr). A kind of sailing vessel used for fishing.

fishing tackle (fîsh'îng tăk'l). Hooks, lines, nets, and other equipment needed for fishing.

fish market (fîsh măr'kêt or fîsh măr'kît). A place where fish are sold.

floating buoy (flôt'îng bōō'î). An object that floats on the water to mark a channel or warn of dangers. It is anchored to the bottom of the ocean or stream.

flood (flūd). Very high water. A stream that overflows its banks.

flurry (flûr'î). Snowfall that comes suddenly with a gust of wind.

fog (fög). A cloud of mist, or very fine particles of water, in the air.

foghorn (fög hôrn). A horn sounded to warn sailors of danger during a fog.

foot loom (fōôt lōōm). A loom that is worked partly by the foot.

4-H clubs (fôr'ăch' clŭbs). Clubs in which farm boys and girls learn many useful things.

Frenchmen (frêch'mûn). Men who are natives of France.

fruit cellar (frōôt sêl'ēr). An underground room where fruit is stored.

furrow (fûr'ô). A long, narrow groove cut in the ground by a plow.

fur seal (fûr sêl). A seal with a furry skin that is used in making sealskin coats.

Gallup (găl'úp). A town in New Mexico.

game (gām). Animals which are hunted.

glacier (glă'shêr or glăs'î-êr). A large body of slowly moving ice.

globe (glôb). A map of the earth on a round ball. Because a globe is the shape of the earth, it is the best kind of map.

government (gŭv'êrn-münt). The people who make rules or laws and do many other things for us.

governor general (gŭv'êr-nêr jên'êr-ül). A governor or ruler who has other rulers under him.

grain drill (grăn drîl). A farm implement that plants small seeds.

granite (grăn'it). A very hard rock used in buildings and monuments.

greasewood (grês'wôôd'). A shrub that grows in dry lands.

Great Lakes (grât lâks). The five large lakes between the United States and Canada.

growing season (grô'îng sê'z'n). The number of weeks or months when the weather is warm enough for plants to grow without danger of being injured by frost.

Guatemala (gwä'tä-mä'lä). A country in Central America.

Guatemala City (gwä'tä-mä'lä sīt'ī). The capital of the country of Guatemala.

guitar (gī-tär'). A musical instrument with six strings which are played with the fingers.

gull (gūl). A water bird that feeds on fish.

gully (gūl'ī). A ditch or little valley that has been made by running water.

hair seal (hâr sēl). A kind of seal that lives in the cold North.

harmonica (hâr-mön'ī-kâ). A mouth organ.

harpoon (hâr-pōön'). A barbed spear with a rope fastened to it.

harrow (hâr'ō). An implement that breaks up the soil after it is plowed.

hatchery (häch'ēr-ī). A place for hatching eggs.

haymow (hâ'mou'). The upper part of a barn, where hay is stored.

hayrack (hâ'räk'). A large frame put on a wagon so it will hold more hay, straw, or bundles of grain.

hearth (hârth *or* hûrth). A place on the floor for a fire.

helmsman (hēlmz'mūn). The man who steers a ship.

herring (hēr'īng). A kind of small salt-water fish.

herring gull (hēr'īng gūl). A small wading bird that lives near the ocean.

Heu (hâ'ōō) *Ind.* Word in Boro language that means *yes, I agree.*

highland (hī'lūnd). High or mountainous land.

high tide (hī tīd). The tide when the water of the sea is at its highest along the shore.

hogan (hō'gōn) *Ind.* A Navaho Indian house.

hopper (hōp'ēr). A box on a corn planter that holds the kernels of corn.

Hudson Bay (hūd's'n bā). A large bay in the northern part of Canada.

hull (hūl). The body or main part of a ship.

hummock (hūm'ūk). A small mound of earth.

husking (hūsk'īng). Gathering corn by separating the ears from the husks and stalks.

hybrid corn (hī'brīd kōrn). An improved kind of corn.

igloo (īg'lōō). An Eskimo house.

imported (īm-pōrt'ēd *or* īm-pōrt'īd). Brought in from another country. An import is a product brought in from another country.

incubator (īn'kū-bā'tēr). A machine in which eggs are hatched by heat.

India (īn'dī-ā). A large country in the southern part of Asia.

inhabitant (īn-hāb'ū-tūnt). A person who lives in a place.

inland (īn'lūnd *or* īn'lānd). Away from the seashore.

inshore (īn'shōr' *or* īn'shōr'). Being near the shore, or moving toward the shore.

irrigation ditch (īr'ū-gā'shūn dīch). A ditch that carries water to fields and gardens.

island (ī'lūnd). A body of land with water all around it. An island is smaller than a continent.

italics (ī-tāl'īks). Type with letters slanting to the right as in the word *italics*.

jacaranda (jāk'ū-rān-dā). A tree that grows in the hot lands of North and South America.

jaguar (jäg'wār). A fierce, wild animal much like a leopard, but larger.

Japan (jā-pān'). A group of islands east of Asia called the Japanese Empire.

Japurá (zhā'pōō-rā'). A South American river.

jellyfish (jēl'ī-fish'). A large sea animal with a jelly-like body shaped something like a saucer.

José (hō-sā') *Sp.* Joseph.

Juan (hwān) *Sp.* John.

jungle (jūng'g'l). A very thick tangled growth of plants.

juniper (jōō'nū-pēr). An evergreen tree or shrub.

jut (jūt). To stick out or extend out.

kayak (kī'āk). An Eskimo boat for one person.

Kitse (kīt'sē) *Ind.* An Indian name that means "Pineapple."

la casa grande (lā kā'sā grān'dā) *Sp.* The large house.

lady crab (lā'dī krāb). A beautiful, spotted crab.

Lake Atitlán (lāk ä'tē-tlān'). A lake in the highlands of Guatemala.

landscape (lānd'skāp *or* lān'skāp). A picture or model showing natural scenery.

Lapp (lāp). Name of people who live in the cold lands of Europe.

lava (lā'vā *or* lāv'ā). Melted rock which flows from a volcano, or the same rock after it has cooled.

laying season (lā'īng sē'z'n). The season when hens lay the most eggs.

Leghorn (lēg'hōrn *or* lēg'ēr). A kind of chicken preferred by many poultry raisers because it lays many eggs.

lighthouse (līt'hous'). A tall building or tower with bright lights to guide ships at night.

lightship (līt'shīp'). A ship with bright lights anchored near a dangerous place in the sea to give warning.

limpet (līm'pēt *or* līm'pīt). A small, shell-covered animal that lives in the ocean.

lizard (līz'ērd). A small animal with a long body and a long tail.

lobster (lōb'stēr). A kind of sea animal used as food.

lobster trap (lōb'stēr trāp). A box with bait in it for catching lobsters.

loom (lōōm). A frame used in weaving cloth.

lowland (lō'lūnd). Land which is not much higher than the sea.

low tide (lō tīd). The tide when the water along the shore of the ocean is lowest.

lynx (līngks). A kind of wildcat.

macaw (mū-kō'). A large parrot.

mackerel (māk'ēr-ūl). A salt-water fish that grows to be 12 to 18 inches long.

Malay (mā-lā' *or* mā'lā). Name of brown-skinned people that live on the Malay Peninsula and near-by islands.

Malay Peninsula (mā-lā' *or* mā'lā pūn-īn'sū-lā). The long, narrow peninsula in the southeastern part of Asia.

Malemute (mā'lū-mūt). An Eskimo dog.

- maloka** (mä-lō'kä) *Ind.* A kind of house large enough for all the people of an Indian village to live in. Malokas are found in the rain forests of South America.
- Manaus** (mä-nä'ōos). A city in South America.
- mango** (mäng'gō). A large pear-shaped fruit.
- manioc** (män'i-ōk *or* mā'nī-ōk). Another name for the cassava plant.
- Maria** (mä-rē'ä) *Sp.* Mary or Marie.
- marimba** (mä-rim'bā). A musical instrument with bars of wood or metal which are struck by sticks something like drumsticks.
- market place** (mär'kēt *or* mär'kit plās). An open square or place in a town where goods are sold.
- mass** (mäs *or* mäs). A religious service.
- Maya** (mä'yā) *Ind.* Name of Indian tribes in Mexico and Central America.
- meat-packing center** (mēt-pāk'ing sēn'tēr). A place where a great amount of meat is packed and shipped.
- medicine man** (mēd'ū-sūn män). A person who claims to cure sickness by drugs and charms.
- merchant** (mūr'chūnt). One who buys and sells goods.
- mercy ship** (mūr'sī ship). A ship that travels about bringing aid to people in distress.
- Mexico** (mēk'sī-kō). The country in North America that lies just south of the United States.
- migration** (mī-grā'shūn). Moving from one place to another.
- milpa** (mīl'pā) *Sp.* A field where crops are planted.
- Minik** (mīn'ik). Name of an Eskimo boy.
- moccasin** (mōk'ū-sūn). A low shoe made of soft leather.
- mooring** (mōōr'ing). The place where a boat is anchored or fastened.
- morro** (mōr'rō) *Sp.* A tree that grows in Central America.
- mountain** (moun'tīn *or* moun'tūn). A very high rocky hill, usually with steep sides.
- mountain chain** (moun'tīn *or* moun'tūn chān). A row of mountains.
- mukluk** (mūk'lūk'). An Eskimo shoe.
- muktuk** (mūk'tūk'). The outside skin of the whale.
- mushing** (mūsh'ing). Traveling by dogsled or on foot with dogs.
- muzzle** (müz'l). The jaws, mouth, and nose of a calf, horse, or other animal.
- native** (nā'tiv). A person born in a certain region or country. Pimwe is a native of the Amazon rain forest.
- Navaho or Navajo** (nāv'ā-hō) *Ind.* An Indian tribe that lives on a reservation in Arizona, New Mexico, and Utah.
- Nelakatuk** (nēl'ū-kū-tūk'). A game played by the Eskimos. "Toss the blanket."
- New Mexico** (nū mēk'sī-kō). A state in the southwestern part of the United States.
- nomad** (nō'mād). One who wanders from place to place to find pasture for his flocks.
- Nome** (nōm). A town in Alaska.
- nor'easter** (nōr-ēs'tēr). A storm or strong wind coming from the northeast.
- North Pole** (nōrth pōl). The point on the earth that is farthest north.
- Norway** (nōr'wā). A country in the northern part of Europe.
- oarsman** (ōrz'mūn). Man who rows a boat with oars.
- oases** (ō-ā'sēz). Places in a desert where there is enough water for plants to grow.
- ocean** (ō'shūn). A very large body of water. The oceans are: the Atlantic, the Pacific, the Indian, and the Arctic.
- otter trawl** (ōt'ēr trōl). A very large net for catching fish.
- outside** (out'sīd'). The name which Alaskans commonly use to refer to the world "outside Alaska."
- ox** (ōks). A kind of cattle used to pull plows, wagons, and other heavy vehicles.
- oyster** (ois'tēr). A small, hard-shelled sea animal that is good to eat.
- packing house** (pāk'ing hous). A place where meat is prepared and packed to be sold.
- panpipe** (pān'pip'). A mouth organ made of hollow reeds.
- parka** (pār'kā). The loose, outer garment worn by the Eskimos.
- patio** (pā'tī-ō) *Sp.* An inner court or yard open to the sky. Houses are often built around patios.
- peasant** (pēz'ūnt *or* pēz'n't). A European farmer.
- Pedro** (pē'drō *or* pā'drō) *Sp.* Peter.
- peninsula** (pūn-in'sū-lā). Land almost surrounded by water.
- Perrichito** (pā-rē-chē'tō). The name José gave to his puppy.
- Perrito** (pā-rē'tō) *Sp.* Name of José's dog. A Spanish word meaning "Little Perro."
- Pika** (pē'kā) *Ind.* An Indian name that means "Turkey Buzzard."
- Pimwe** (pīm'wē) *Ind.* An Indian name meaning "White Ibis."
- pine nut** (pīn nūt). A pine-tree nut that is good to eat.
- pioneer** (pī'ō-nēr'). An early settler.
- plain** (plān). Smooth, level land.
- plantain** (plān'tīn). Fruit of a plant much like the banana. It grows in hot countries and is cooked before it is eaten.
- plantation** (plān-tā'shūn). A very large farm where rubber, coffee, cotton, or other crops are grown.
- plateau** (plā-tō'). High land that is level or almost level.
- plaza** (plā'zā *or* plā'zā). A public square in a town or city.
- plow** (plou). An implement that turns the soil over before planting.
- point** (point). Land that extends out into the water.
- polar hare** (pō'lēr hār). A rabbit that lives in the cold North.
- port** (pōrt). A harbor; a place where boats can load and unload.
- prairie** (prār'ī). A large area of grassland or meadow.
- pressure cooking** (prēsh'ēr kōōk'ing). Cooking food by steam in an airtight container.

- produce terminal** (pröð'ūs tûr'mû-nål). The city market to which fruits, vegetables, and other farm products are shipped.
- Pueblo** (pwëb'lô). A North American Indian tribe.
- pulverizer** (pûl'vêr-iz'êr). A machine which breaks up lumps in the soil.
- purse seine** (pûrs sãn *or* pûrs sên). Fishing nets that are drawn up like huge purses.
- rain forest** (rãn för'êst *or* rãn för'ist). A hot, wet forest where much rain falls.
- ram** (rãm). A male sheep.
- rattan** (rã-tãn'). Stems of a kind of palm used in making cords, baskets, and many other things.
- region** (rê'jûn). Any large part of the earth's surface.
- reservation** (rêz'êr-vã'shûn). A large tract of land which the government has set aside for the Indians.
- reserved** (rê-zûrvd'). Set aside or held for some special use.
- Ria** (rê'ä) *Sp.* Nickname for Maria.
- river bed** (rîv'êr béd). The bottom of the river. The land over which a river flows.
- rock crab** (röck kräb). A crab that lives along rocky shores.
- roundup** (round'ûp'). Gathering animals together for branding or marking.
- Rumania** (rôo-mã'nî-â). A country in Europe.
- run** (rûn). The movement of a large school of fish.
- running** (rûn'ning). The swimming together of large schools of fish.
- runway** (rûn'wâ'). A passageway for animals.
- rural delivery** (rôor'ûl dê-lîv'êr-î). Free delivery of mail in the country.
- sagebrush** (sãj'brûsh'). A shrub that grows wild on the dry western plains of the United States.
- Sahara Desert** (sã-hã'rã *or* sãhã'rã dêz'êrt). A large desert in Africa.
- San Antonio Palopó** (sãn än-tô'nyô pã-lô-pô') *Sp.* A town in the highlands of Guatemala.
- sand bar** (sãnd bãr). A ridge of sand that has been washed up by the current or waves. Some sand bars are above the surface of the water and some are below.
- sandpiper** (sãnd'pîp'êr). A small bird with long legs and a long bill.
- sardine** (sãr-dên' *or* sãr'dên). A small fish that is canned in oil, mustard, or tomato sauce.
- sarsaparilla** (sãr'sã-pã-rîl'ã). A kind of plant. Its roots are used in making medicines and drinks.
- scenery** (sên'êr-î). View of unusual or beautiful spots, especially in the open country.
- school** (skôol). A very large number of fish swimming together.
- sea** (sê). The ocean, or a large body of water that is smaller than an ocean.
- sea anemone** (sê ân-nêm'ô-nê). A beautiful sea animal that looks like a flower.
- sealing** (sêl'ing). Hunting for seals.
- seashore** (sê'shôr'). Shore of the ocean.
- season** (sê'z'n). A division of the year. Where we live the four seasons are spring, summer, autumn or fall, and winter.
- Seattle** (sê-ät'l). A city in the United States.
- Señor Panzo** (sã-nyôr' Pãn'zô) *Sp.* Owner of the finca where Juan and his family worked.
- separator** (sêp'ã-rã'têr). A machine which separates cream from milk.
- share** (shâr). The curved part of a plow that turns the soil over.
- shredder** (shrêd'êr). A machine that husks shocked corn and cuts the stalks and leaves into shreds.
- Siberia** (sî-bêr'î-â). Region in northern Asia, part of Russia.
- siesta** (sî-ês'tã) *Sp.* A short rest or sleep, usually in the middle of the day.
- silo** (sî'lô). A round building in which green feed which has been cut fine is preserved for animals.
- sinew** (sîn'û). The long, threadlike end of a muscle.
- skyscraper** (skî'skrãp'êr). A very high building.
- slaughter** (slô'têr). To kill, or butcher, animals for meat.
- slicker** (slik'êr). A kind of raincoat.
- sloth** (slôth *or* slôth). A slow-moving animal of Central and South America.
- smack** (smăk). A small sailboat with a tank for live fish.
- snow line** (snô lîn). The level on a mountain above which snow never melts.
- snowshoe** (snô'shōō'). A wooden frame with strips of leather across it. Snowshoes are worn on the feet to keep from sinking into the snow.
- sou'wester** (sou'wês'têr). A hat made of canvas or oilcloth that is often worn by fishermen, especially during a storm.
- South Africa, Union of.** See **Union of South Africa.**
- South Pole** (south pöl). The point on the earth that is farthest south.
- soybean** (soi'bên'). A plant that makes good pasture or hay. Soybean seeds have many uses.
- Spain** (spãn). A country in Europe.
- Spaniard** (spãn'yêrd). A native of Spain.
- spinning stick** (spîn'ning stîk). A stick used in spinning thread from cotton or wool.
- splice** (splis). To fasten two ropes together without knots.
- stanchion** (stãn'shûn). A pair of bars used around cows' necks to keep them in their places while being milked.
- steam cooker** (stêm kôök'êr). The container used for jars of food in pressure cooking.
- steamship** (stêm'shîp'). A ship that is moved by a steam engine.
- strait** (strât). A narrow body of water that connects two larger bodies of water.
- tamale** (tã-mã'lê) *Sp.* Food made of crushed corn, chopped meat, peppers, and oil.
- tapir** (tã'pêr). A large, piglike forest animal.
- temperature** (têm'pêr-ã-chôör). Heat and cold, as measured on a thermometer.
- thatch** (thăch). Cornstalks, straw, grass, or leaves used as covering for a house.
- threshing machine** (thrêsh'ing mã-shên'). A machine that separates grain from straw and chaff.
- tide** (tid). The rising and falling of the water of the ocean.

Tomás (tô-mäs') *Sp.* Thomas.

Topo (tô'pô) *Ind.* An Indian name that means "Loaf of Cassava Bread."

tortilla (tôr-tē'yä) *Sp.* A thin, flat corncake.

tractor (trāk'tēr). An engine on wheels used to pull a plow, harrow, or other farm implement.

trawler (trôl'ēr). A kind of boat used in fishing.

trough (trôf). A long container for feed or water for animals.

tuna (tōō'nā). A large fish used for food.

tundra (tōōn'drā or tūn'drā). A treeless plain of the frozen North.

turquoise (tūr'koiz or tūr'kwoiz). A blue-green stone used in jewelry.

Ukahe (ōō-kä'hē) *Ind.* Name of the medicine man in Pimwe's village. Ukahe means "Tapir."

umiak (ōō'mī-āk). An Eskimo boat made of skins stretched over a frame.

undergrowth (ŭn-dēr-grōth'). Bushes, vines, and other plants growing beneath trees in a forest.

Union of South Africa (ūn'yūn of south āf'rī-kā). A country in the southern part of Africa.

Union Stock Yards (ūn'yūn stōk yārdz). Pens and sheds where animals shipped to Chicago are kept until they are sold.

upstream (ŭp'strēm'). The direction from which a stream flows.

valley (văl'ī). Low land between hills or mountains.

Viking (vī'kīng). An early seaman from the northern part of Europe.

volcano (vōl-kā'nō). An opening where melted rock and steam rise from the earth.

wanderer (wōn'dēr-ēr). One who goes from place to place.

water buffalo (wō'tēr or wōt'ēr būf'ā-lō). A kind of buffalo used in some countries as a work animal.

weave (wēv). To make cloth by working threads over and under other threads on a loom.

wharf (hwōrf). A platform or other structure on shore or along shore where ships load or unload.

windbreak (wīnd'brāk'). Anything that breaks the force of the wind.

windmill (wīnd'mīl' or wīn'mīl'). A machine with a wheel that is turned by the wind. Farm windmills are usually used for pumping water.

windrow (wīnd'rō' or wīn'rō'). A row of hay raked up to dry.

Witoto (wē-tō'tō). A South American Indian tribe.

Yabe (yā'bē) *Ind.* The chief of the Boro village in which Pimwe lived. Yabe means "Parrot."

Index

The following index will tell students where to find things in the book. It will also be useful to teachers in suggesting a wide range of research topics suitable for individual or class assignment.

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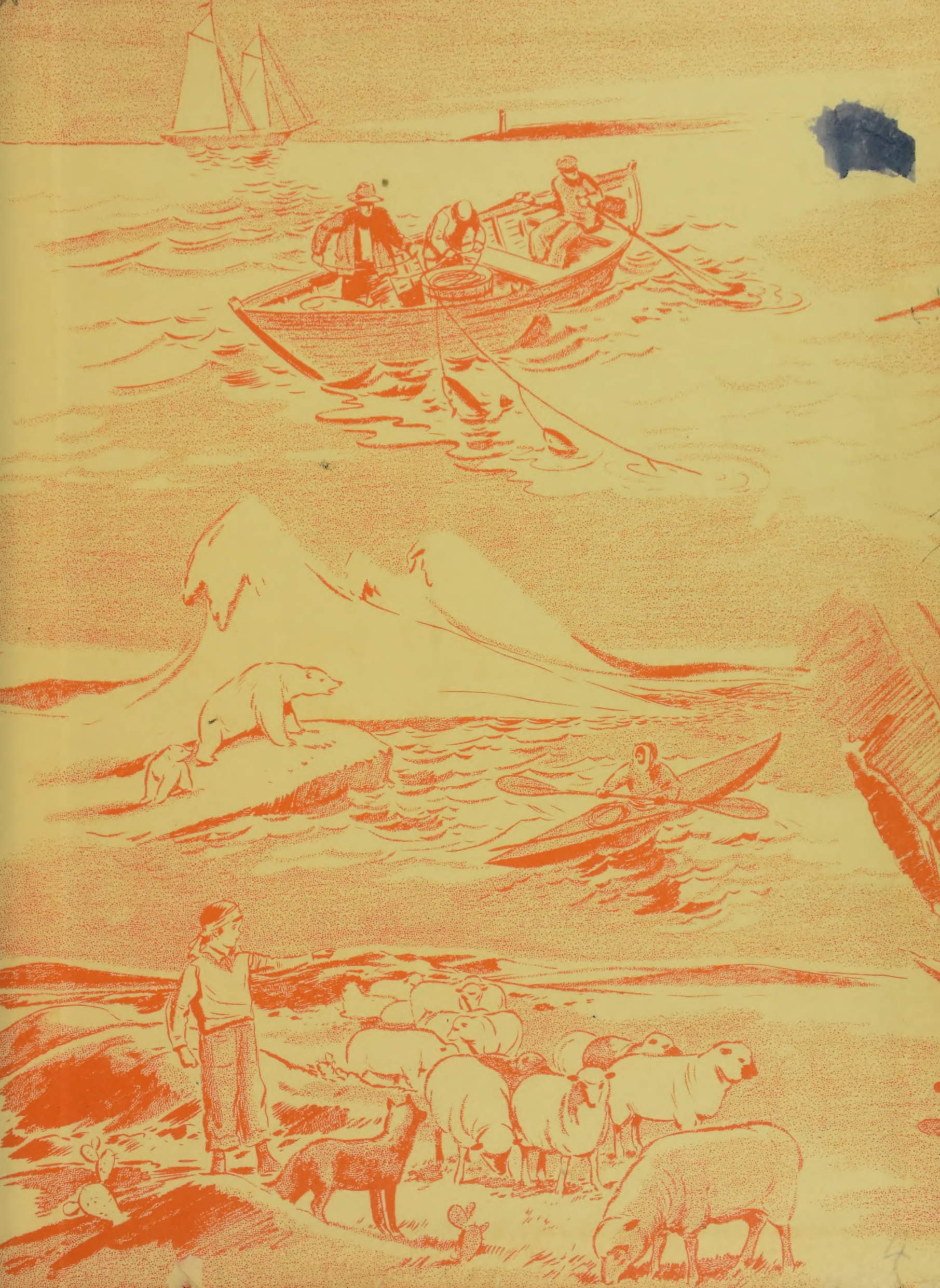
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